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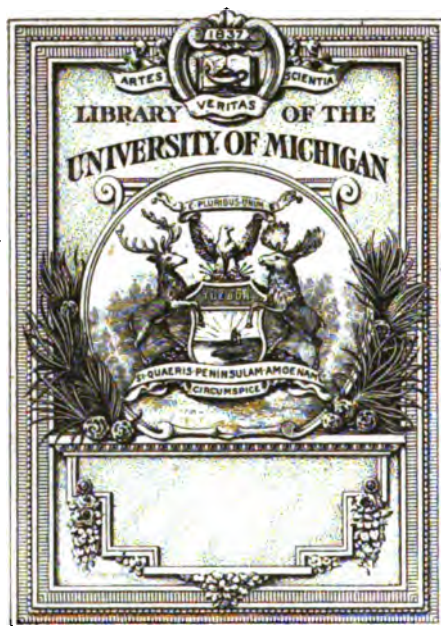
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# THE MEMPHIS LANCET.

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EDITED BY

R. B. MAURY, M.D.	J. M. MAURY, M.D.
M. B. HERMAN, M.D.	M. GOLTMAN, M.D.
W. W. TAYLOR, M.D.	E. C. ELLETT, M.D.
WM. KRAUSS, M.D.	S. E. RICE, M.D.

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### CONTRIBUTORS TO VOLUME III.

Barton, James,	Memphis, Tenn.	Kolischer, Gustav,	Chicago, Ill.
Beard, C. H.,	Chicago, Ill.	Krauss, Wm.,	Memphis, Tenn.
Boyd, Hugh,	Memphis, Tenn.	Kreissl, F.,	Chicago, Ill.
Buford, G. G.,	Memphis, Tenn.	Maury, John M.,	Memphis, Tenn.
Cantrell, John H.,	Chattanooga, Tenn.	McKinney, Richmond,	Memphis, Tenn.
Chaillé, S. E.,	New Orleans, La.	McSwain, I. A.,	Paris, Tenn.
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Herman, M. B.,	Memphis, Tenn.	Williams, Edwin,	Memphis, Tenn.
Jacobs, Arthur G.,	Memphis, Tenn.		

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I

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# THE MEMPHIS LANCET.

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No. 1

## ORIGINAL ARTICLES.

### THE GALVANO-CAUSTIC RADICAL TREATMENT OF PROSTATIC HYPERTROPHY.\*

BY F. KREISSL, M.D.

CHICAGO.

Professor of Genito-Urinary Surgery, Chicago Clinical School.

The history of galvano-caustic incision of the prostate is not of so very recent a date as one might believe, judging by the comparatively short time in which it became generally known and done. Bottini described it in Langenbeck's Archive in 1897, but with the exception of Lenander and Czerny very few surgeons became interested in it. His method failed to command the attention of the medical profession for various reasons, such as the inadequate construction of the first instruments, the insufficient electrical supply previous to the introduction of the storage cells into electrotherapeutics, the disinclination on the part of surgeons to work in the bladder without the guidance of the eye, and the more imagined than actually existing danger of hemorrhage following the incision. But the greatest obstacle to the adoption of Bottini's ingenious idea was, and to a certain extent still is, Guyon's theory of the etiology of prostatic hypertrophy, attributing all the symptoms in these cases to congestion and arterio-sclerosis of the urinary tract, and not to the obstructing barrier at the vesical neck

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\* Read before Illinois State Medical Society, Cairo, May 18, 1899.

## 2 TREATMENT OF PROSTATIC HYPERTROPHY.

and in the prostatic urethra. It is to be regretted that this theory has caused part of the medical profession to look upon prostatic hypertrophy with indifference or helpless resignation, while others employed the most heroic and yet oftentimes unsatisfactory measures, as, for instance, castration and drainage of the bladder by perforating the gland through the perineum or the rectum. But Guyon's theory lacks the support of practical experience, and the cases in which the bladder, even after years of complete retention, regained normal functions when the obstructing portion of the prostate had been removed, should have pointed to the barrier as one of the probable primary causes, and should have invited investigation and surgical interference in this direction.

The cystoscope has also contributed to throw light upon the situation, and has demonstrated that prostatic hypertrophy is not a disease peculiar to men in that age of which Sir Henry Brody says: "The prostate grows when the hair turns gray and starts coming out," and which, according to Sir Henry Thompson's age limit, is past the fifty-sixth year of life. Admitting that naturally we very often find hypertrophy associated with arterio-sclerosis in advanced age, I have frequently met with hypertrophy and retention in the forties and early fifties, where the most exhaustive examination did not allow of another diagnosis, and the cystoscope failed to disclose arterio-sclerosis. On the other hand, I have seen through the cystoscope extensive arterio-sclerosis of the bladder wall and prostates of old men afflicted with hematuria, cases in which considerable tenesmus existed, and the calls to urinate came as often as in prostatic obstruction, and yet no residual urine was found in the viscus, a blood clot in the vesical neck having produced all the disturbance. Although it cannot be denied that structural changes of the bladder wall are peculiar to and increase with the advancing age, they certainly become accentuated and aggravated by mechanical obstruction at the vesical neck, and more so by a chronic inflammation. We therefore are not justified in regarding arterio-sclerosis and congestion as the exclusive causes of all the clinical symptoms of "prostatism," and of the anatomical changes in the prostate, bladder and kidney. Bottini has to be given credit for having first conceived the correct conclusions regarding prostatic obstruction, and for devising the method of galvano-caustic division of the gland by way of the

urethra, securing the adjacent parts from incalcescence by the employment of a refrigerator.

The apparatus itself, in its present modification, devised by Freudenberg in Berlin, does not allow of any criticism, and in the hands of a competent surgeon renders the operation absolutely harmless. I give the description in his own words :

“The modifications in point are relative to shape, handiness and electro-technical construction, affording at the same time the possibility of sterilization.

“The modified instrument is provided with a stout, cylindrical, grooved handle, strong and steady in the hand, quite resembling the well-known handle of a lithotrite.

“The cooling apparatus is inserted on this side of the handle, instead of at its further extremity, thereby obviating incalcescence of the handle, and securing the rubber hose of the cooling apparatus from being compressed by the ulnar aspect of the hand.

“In lieu of the platinum blade, platiniridium is used, this alloy being harder, and so less apt to bend, and by reason of its electrical resistance permitting of the employment of the weaker current for rendering the blade incandescent.

“Another addition consists in the conduction of the current ascending to the knife within the guide through a single wire only, equaling in volume the two wires used in the original instrument; the descending current passing through the hull proper, and, by reason of its close contact with the canula, through the entire length of the external instrument. Moreover, greater steadiness of the blade, riveted as it is to the inflexible hull, has been insured. The connection of the instrument with the conducting wires has been achieved by a process corresponding with the axis of the instrument and leaving both poles in a concentric arrangement. A slight jerk will move up the corresponding cable attachment to which the cables are fastened; these are united to one conducting wire, and owing to the improvements of electrical construction are much thinner than formerly.

“Interpolation and interruption of the current are affected by a minute screw, superseding the special interrupter of the original apparatus.

“The last and, as I view it, most important alteration, is the employment of a water-proof and heat-proof putty, which, by tight-

#### 4 TREATMENT OF PROSTATIC HYPERTROPHY.

ening and isolating the apparatus, allows of its being treated *in toto* like any other surgical instrument, not only as to antiseptic solutions, but as to sterilization in boiling water, a process we could not formerly have applied without seriously damaging the instrument.

"The new departure is sure to meet with appreciation, especially when one is promiscuously dealing with septic and aseptic bladders.

"In conclusion, I beg to call attention to an accumulator for Bottini's operation, which, however, may be employed in any other galvano-cautery. It is fitted up with an amperemeter."

(The idea of adding an amperemeter was suggested to Freudenberg by the fact that in practicing the Bottini method the degree of incalescence of the blade, after being introduced into the bladder, was beyond the control of the eye.)

"The amperemeter allows one at any time to read the strength of the current permeating the instrument, thereby getting an exact indication of the temperature of the blade."

A minute description of the modified incisor is given in the *Centralblatt für Chirurgie*, no. 29, 1897.

The operation is performed without chloroform, cocain only being applied as a local anesthetic. The bladder is emptied by the catheter before introducing the incisor, which itself should be tested previously in regard to the temperature necessary to produce a slight degree of white heat in the blade. This amount is registered on the amperemeter and can be kept up while the blade is beyond the control of the eye. After having introduced the instrument very much like an ordinary steel sound so far that the beak is well in the viscus of the bladder, one turns it to the lobe which it is wished to incise, and at the same time brings the cooling apparatus into action. This done, it is necessary to pull the instrument downward until the point of the beak is well hooked to the upper margin of the gland, and close the current. From ten to fifteen seconds are allowed to pass, which time is necessary to heat the blade up to the temperature desired, and then the incision is made by slowly turning the screw to the right. This, as one will see on the downward motion of the outer piston, brings the blade out of the protecting groove and into the gland. The graduated scale on the piston allows an exact estimate of the length of the incision.

Having obtained this, one must reverse the way of the screw until satisfied that the blade is back again in the groove, then interrupt the current and remove the instrument. If more than one incision is desired, the instrument may be turned toward the lobe it is wished to incise, and proceed in exactly the same way devised for the first incision. The operation takes from two to five minutes, after which there is very little, if any, complaint on the part of the patient, a slight burning sensation during micturition, and slightly bloody urine for the first twenty-four or forty-eight hours; this is about all which is experienced. The patient is allowed to get up in forty-eight hours, provided no contraindicating complications exist.

I do not consider it of paramount importance to fill the bladder with a small amount of fluid before the operation, as advised by Freudenberg and Viertel, or to distend the bladder with air, as done by Lewis. The fluid in the bladder only makes the use of much more powerful and voluminous batteries necessary. The danger of perforating the empty bladder by hooking a transverse vesical fold with the point of the instrument, as happened to Freudenberg, seems to me very remote, and might perhaps have been caused by working too high up in the viscus. I cannot see any objection to inflating the viscus with air, if one feels safer to operate this way, because the air does not interfere with the platinum burner, and, it is claimed, renders the operation absolutely painless.

From the description one might conclude that the operation is the most uncomplicated and simple procedure one can think of, and it is so under certain conditions. First of all, a correct diagnosis is required, based upon a thorough bimanual, and, wherever possible, cystoscopic examination. It is not sufficient to establish the fact of an existing enlargement of the gland, but it is paramount to determine the character, location and configuration of the obstructing objects. The hypertrophied prostate is voluminous, but not every large prostate is hypertrophied. Hypertrophy, which is a disease, is quite different from prostatomegaly, which is only a symptom accompanying prostatic edema, congestion in old people, chronic prostatitis and tumors of the gland. It is further necessary to determine if the enlargement is a general and uniform one, or if but parts of the gland are involved, and which parts, and if the

## 6 TREATMENT OF PROSTATIC HYPERTROPHY.

projecting nodules look into the viscus, or have invaded the prostatic urethra.

Strictures, especially in the membranous urethra, are often found complicating hypertrophy; diverticula, concretions and tumors in the viscus, and chronic inflammatory conditions outside of but close to the bladder wall will influence our action and the prognosis. Paresis and paralysis of the bladder of spinal origin should be excluded in order to avoid disappointments with and reflections upon the method. The amount of retention urine is, in my experience on fifteen cases, and from what I read in the literature on the subject, without consequence in the final result of the operation. But of great value is the proof of elongation of the posterior urethra, without which hypertrophy of the prostate is hardly imaginable. This will prevent us, for instance, from diagnosing as it actually occurred prostatic enlargement in cases in which concentric hypertrophy of the bladder wall had rendered it impossible to feel the line of demarkation of the gland. When I said the operation, as a rule, is very simple and uncomplicated, I meant to say in the hands of the surgeon who is familiar with the peculiar work in the urethra and bladder. I therefore do not agree with Alexander Thomson's objection that working in the dark without the reliable guidance of the eye is too dangerous to favor Bottini's operation, because we possess this guidance in the distinct sensation of resistance communicated to our hand in the very moment when the cavity of the beak of the incisor touches the prostate.

If these objections would be accepted, how would it stand about curetting of the uterus, vaginal hysterectomy, myomectomy, and litholapaxy? And yet we all know that the master hand of Sir Henry Thompson has crushed many concretions, even in the empty bladder, without a lesion to the latter. We all know that one or the other surgeon unfortunately perforated the uterus during a curettement; that a ureter was ligated in a vaginal operation; that a bladder fold was picked up by and crushed between the bars of a lithotrite, but these accidents have not induced us to give up these operations. The failures or incomplete results after the operation have to be attributed to various reasons. I would divide them into those due to the operator or to his apparatus, and those for which he cannot be held responsible. Among the first I enumer-

ate insufficient lengths and numbers of the incisions, insufficient heat in the blade of the incisor, and the desultory incising of the vesical neck, notwithstanding an insufficient or incorrect diagnosis. To the second I would count total loss of contractile elements in the bladder wall; too far advanced cases in which the projections are too high and too thick to allow an effective cauterization, and all the complications which I have pointed out before. It is to be regretted that we do not possess the means of even approximately ascertaining the condition of the contractile bladder elements before the operation; but the latter, if not successful in such a case as far as a spontaneous micturition is concerned, will at least remove the obstruction and facilitate catheterization, as I have seen in a case I operated on four months ago. The cystoscope will be found of great value in disclosing some of the causes of partial or total failure. I refer to the case of a patient of mine, 76 years old, on whom I performed the operation three months ago. He was so sensitive and restless that cystoscopy was inexpedient, and relying on the result of bimanual palpation, I incised, under steady resistance and restlessness of the patient, the median and left lobe only. As the symptoms of retention remained almost unchanged, I put him under Schleich's general anesthesia, used the cystoscope, and found the right lobe projecting and the median lobe not deeply enough incised, while the incision in the left lobe appeared perfect. I incised the right and the median lobe, which was followed by complete cure.

In another case of complete retention, seen six months after the operation, in which all the morbid symptoms, with the exception of a slight catarrh and 40 cubic centimeters of residual urine, had disappeared, I satisfied myself that the incision had been sufficient, but found that a diverticle, discovered by the cystoscope before the operation, furnished the symptoms of residual urine.

Among the post-operative complications are reported hemorrhage, retention, urethral fever, and, what I have repeatedly seen, but to my knowledge has not been reported by any observer, epididymitis. I believe that the hemorrhages are due to the aimless incision of the anterior part of the prostate, which contains the paraprostatic venous plexus, and which, as we ought to know, never participates in the obstruction. Another source of profuse hemorrhages may be given by incisions carried too far down into the



## 8 TREATMENT OF PROSTATIC HYPERTROPHY.

prostatic urethra. We will also have to expect profuse hemorrhages and unsatisfactory results if we crush the tissues by working too fast, or with an insufficiently-heated blade. True, the amperemeter indicates the strength of the current as it passes through the blade, but a cautery acts differently when burning in the air, or when surrounded by water or moist tissues. Consequently, we do not possess such an absolute reliable guide in the amperemeter as other observers state, and we will have to rely much more upon the sensation of resistance while making the incision. I also found that this resistance became more and more distinct and disturbing the more incisions I made. While it was not felt at all during the first incision, it appeared during the second, which required much more time for the same distance than the first. Upon withdrawing the instrument after the first incision I saw the blade covered with a thick layer of burnt tissue, to which I ascribed the disturbance. After scraping the same off and replacing the instrument again, I experienced no difficulty in performing the second incision, just as fast and easy as the first one. In cases where retention for a short time after a successful division exists it is due to a reactive congestion. I never found the introduction of a soft rubber catheter in such an event difficult, and would only suggest to leave it in the bladder for a few days rather than repeatedly inserting it, which latter is more likely to provoke a hemorrhage, while the former will be efficient in stopping it if it should occur.

I have not seen urethral fever in my cases, but I believe that it might appear, caused by traumatism after forcible use of the incisor.

A very strange occurrence is the epididymitis, which I have seen in about 30 per cent. of my cases, and which is conspicuous by its persistence, and because it usually made its appearance between the third and fifth weeks after the incision, and each time in the epididymis corresponding with the lateral lobe which I had incised. From the time which had elapsed between the operation and the first symptoms, I must exclude traumatism or direct infection. As the swelling appears at the time when the eschars start to separate from the underlying granulating tissue, I would feel inclined to explain the process by absorption. As I do not wish to take up your time with a citation of all my cases, I pick out the

histories of three cases which I consider instructive in many respects, stating that the result in all of the others was, and still is, highly satisfactory, the time of observation in some of them extending over seventeen months after the operation.

Case I. Patient, 71 years old, practicing physician of this city. Noticed first symptoms of frequent urination eight years ago. Experienced pain, tenesmus and increased urination in 1893. In 1896 complete and permanent retention set in and catheter life began. Calls to urinate and pain every fifteen or thirty minutes day and night for the last six months. This is the statement the patient gave me when I saw him first on the second of March of this year, when he came to my office with a profuse hemorrhage from a false passage produced by the futile attempt to pass a metal catheter to relieve his distress. Performed Bottini's operation on the 7th of March. Cystoscopic examination disclosed median lobe and left lobe enlarged and projecting into the bladder. Length of urethra, 11 inches; posterior urethra,  $3\frac{1}{2}$  inches. Made one incision in each of the enlarged lobes. The first of April patient reported continence for four hours day and night, free passage of urine from  $4\frac{1}{2}$  to 5 ounces. On the 13th of April continence for six hours, residual urine in twenty-four hours from 25 to 35 c. c. On the 18th of April patient came to my office with epididymitis on the left side, which has since recurred three times, and which is one of those cases of which I have spoken before. At present, May 15, there is hardly 15 c. c. of residual urine in twenty-four hours.

Case II. Patient, 54 years old. Complete retention for nearly two weeks; had had a similar attack about eight years before (then only 46 years old), from which time frequent and unsatisfactory urination remained and grew worse from year to year. Prostate the size of a large orange; the right and median lobes mostly involved; length of urethra 12 inches (for which reason cystoscopic examination was impossible). Stone searcher did not disclose presence of concretions. In spite of regular catheterization for eight days condition remained unchanged. Bottini's operation July 23, 1898. The next day voluntary urination set in; about  $\frac{1}{2}$  of an ounce expelled every fifteen to twenty minutes; five days afterward, continence for two hours, amount of urine passed increased accordingly. Five weeks after the operation, continence for three hours during the night and two hours during the daytime; residual urine  $\frac{1}{2}$  ounce; urination free, painless and satisfactory. Strange to say, about eight weeks after the operation patient got worse; passed bloody urine which, upon microscopic examination, did not show evidence of a tumor, and by rectal palpation the left lobe was found considerably enlarged and rather painful. Several days afterward, while passing urine with great pain in my presence, he expelled a very small phosphatic concrement, which was followed by similar ones during the next four weeks. As his condition became unbearable and a stone could not be detected by the steel sound, and as cystoscopic examination was impracticable, I advised a suprapubic cystotomy, thinking of the presence of an encysted or sacculated stone, and perhaps a tumor of the left lobe, and explained my views to the patient, who was ready to submit to any operation that promised relief. Suprapubic operation performed November 30, 1898. Trabecular bladder, and between the trabeculae, covered by secondary tissue, fourteen phosphatic concretions were found, each the size of a small bean. Left prostate lobe ulcerated in its vesical portion; curetted and cauterized. Lips of bladder wound sutured to the skin. Patient had an uneventful recovery. Fistula closed five weeks after opera-

## 10 TREATMENT OF PROSTATIC HYPERTROPHY.

tion. About one week afterward recurrence of painful micturition and bloody urine, apparently caused by malignant disease of the left lobe. Continence one hour and a half in daytime, and about three hours at night;  $\frac{1}{2}$  to 1 ounce residual urine.

Case III. Patient, 64 years old. Symptoms of prostatic obstruction appeared first about nine years ago. Six years ago complete retention for twenty-four hours. Saw the patient first four months ago. At that time he had cystitis and alkaline urine; tenesmus day and night; temperature 103° F.; bilateral epididymitis. He had been in the habit of catheterizing himself during the previous two years. The calls to urinate came as often as ten to fourteen times during the night and about every hour during the day. Patient could only press out a few drops of urine at a time. Residual urine measured on various occasions between 5 and 8 ounces. Upon rectal examination the right and the median lobe were found considerably enlarged and hard. Entire length of urethra, 10 inches; posterior urethra,  $3\frac{1}{2}$  inches. Cystoscopic examination corroborated the results of rectal palpation and disclosed two gonorrheal ulcers, the size of a small bean, in the trigonum, where the latter was elevated by the enlarged right lobe. Regular catheterizing and irrigations of the bladder gave some relief, but otherwise condition remained unchanged. Bottini's operation was performed December 28th, 1898. On account of ulcers in the trigonum I used antipyrin as a local anesthetic. (In a passing way I wish to say that in all cases where an absorption of cocain might be anticipated, antipyrin as a local anesthetic should be given preference. The application of antipyrin for this purpose is not of recent date. It was used in Vienna, Paris and Buda-Pesth for litholapaxy and internal urethrotomy some years ago.) Two incisions were made, each 3 centimeters in length, one in the right lobe and one in the median lobe. Left soft catheter in the bladder during the first three days. Eight days after the operation the patient had continence for three hours; residual urine  $\frac{1}{2}$  ounce. Five weeks after the operation continence for six hours day and night; residual urine a few drops. Gonorrheal cystitis improved rapidly under local treatment. Length of posterior urethra  $2\frac{1}{2}$  inches.

The conclusions which I draw from the experience of my own cases, and the reports of others, I should like to concentrate in a few words: The efficiency of the galvano-caustic radical treatment can be explained by the peculiarity of the actual cautery, which, in all organs and tumors rich in connective tissue, does not only display an effect on the contact surface, but also a remote one, so that every cauterized spot forms a shrinking center for the surrounding tissue. The cautery, therefore, will reconstruct the normal caliber of the prostatic urethra, while in cases in which the projections form a bar between the urethra and the trigonum it will bring the bottom of the bladder to the level of the vesical outlet, or so to speak, artificially extend the urethra into the bas fond. In the majority of cases the operation will have to answer both purposes. The success will depend on the condition of the bladder wall and its contractile elements, which have a surprising capability

of recovering and regaining normal or almost normal functions, even after years of complete retention. It goes without saying that surgical means to relieve the distressing symptoms of retention will have to be employed only when conservative methods, after a reasonable time, have failed. Among these, Bottini's galvano-caustic radical treatment will be indicated in most of the cases. Castration might have its advantages in a limited number of cases in which the gland appears diffusely enlarged and soft, but in which no projecting nodules are found. But castration is a mutilating operation, repulsive to the patient, and uncertain in its results. Suprapubic puncture and perineal drainage gives but temporary relief from embarrassment, and prostatectomy is expedient only in the few cases of pediculated lobes, and not without consequence, because it necessitates general anesthesia, as a rule, not required in Bottini's operation, and confines the patient to his bed for weeks, enhancing the risk of dangerous affections of the heart, lungs and kidneys of the old and often emaciated people with which we have to deal. Bottini's operation, even if it should only be partially or not successful at all, which will rarely be the case, is harmless and not followed by a fistula, loss of the testicles, or hypostatic pneumonia, and has therefore to be considered the mildest surgical act in prostatic hypertrophy. As contraindications I would consider only pyelitis, pyelonephritis, and such a general low condition of the patient that no benefit could reasonably be expected from any interference. I cannot see a contraindication in the fact that it becomes sometimes impossible to introduce the incisor over the projections. When it happened in one of my earlier cases I made the urethra passable by leaving a soft rubber tube in the canal for about a week — a means which I have successfully employed for the purpose of facilitating catheterization in hard, narrow-gauged strictures for years. If it should be absolutely impossible to pass a rubber catheter, I would not hesitate to perform suprapubic puncture, relieving the momentary distress, and as a preliminary step for Bottini's operation. The cases are many in which such a procedure resulted in reducing the congestion and swelling in the prostate, and a good-sized metal instrument could be passed through the urethra in a few days.

1006 Stewart Building.

## VOMITING OF PREGNANCY.

BY G. G. BUFORD, M.D.

MEMPHIS.

Science is founded on facts; facts often on theory. Theory supported by facts makes science. That women vomit during pregnancy is a fact, and that they are now and have been unsuccessfully treated for centuries is also a well-established fact that needs no support of theory. That the *casus casi* of hyperemesis during the gravid period has been *terra incognita* till now is proven by the constant failure of the applied therapy. The theory that the condition is the result of a reflex originating in the uterus, is no longer tenable. That there is a direct nervous connection between the female genitalia and stomach is as preposterous as it is absurd. Spasmodic contraction of the walls of the stomach in response to local irritation is a reflex pure and simple. A reflex is the conversion of a sensory impulse into a motor act. Emesis, which is the induced result of faucial irritation, is a reflex. Emesis, caused by a hypodermic of apomorphia is not a reflex; nor is the emesis following the administration of morphia, chloroform, ether, etc., a reflex. Motions of all kinds in the economy are the results of muscular contraction, and this is the physiological expression of a stimulus originating in the nerve center presiding over the muscles moved. In the production of organic phenomena or motions of organs concerned in nutrition, growth and decay, this stimulus, this *vis nervosa*, is generated and transmitted involuntarily. Stimuli are of two classes, normal and abnormal, and each of these two classes may be further subdivided into (a) electrical, (b) mechanical, (c) chemical. In this paper I shall give attention only to those phenomena resulting from chemical agents, both normal and abnormal.

The observable mechanical phenomena of emesis are solely those referable to the stomach as a muscular viscus, and are shown in proportion to the degree of irritation, central or peripheral, first in the sensation of pain or nausea, and second in the reversed peristalsis of the stomach, producing the ejection of its contents. Vomiting is then the result of peripheral or central irritation, as

we see from improper food on the one hand and as results of epilepsy or rather of the causes producing epilepsy and of head injuries. Since nausea and emesis of pregnancy often occur when the stomach is empty, and especially in the morning, after the contents of the stomach from previous day have been passed into the bowels, the idea of a reflex from peripheral irritation of the pneumogastric nerve is entirely eliminated. Then since nausea and emesis occur regardless of peripheral irritation, we are forced to the conclusion that there must be a central cause for it, and from the very nature of the conditions this must be a chemical substance, brought by the blood current in direct contact with the vomiting center, which is in the nucleus of the vagus, in the floor of the fourth ventricle. This may be theory, but it is theory supported by physiological facts, hence scientific data, which will be used further on.

The fact then is incontrovertibly established that emesis gravidarum is the result of a central irritation, and this irritant is a chemical substance. Now the next step is to see what and whence is this chemical substance that has so sorely worried pregnant women from the time that mother Eve ceased to be a chaste virgin to now, and has perplexed physicians since the days of Hippocrates to this the closing of the nineteenth century.

The normal result of conception is cell multiplication, the fecundated cell or ovum elaborating its constructive material from that presented to it by the blood. This cell proliferation takes place in the fetus, in the walls of the womb, and in the mother, depositing fat for future use. Cell metabolism is hyperactive in both the embryo and the mother, resulting in anabolism. Constructive metabolism is possible only by the cell appropriating to itself suitable material for its growth. Whether the cell by its inherent power appropriates the proximate principles as such, which are presented in the blood, or by its catalytic force splits up the molecules, and then recombines them, there are left in the blood current certain substances which are excrementitious in character. These are substances both free and combined, which during cell metabolism have given up some one or more of their elements, especially oxygen, nuclein, and the sulphur and phosphorus compounds. There also is *pari passu* with anabolism, katabolism. During this process nucleinic acid is liberated, which in turn is split up into uric acid and albumin, the albumin probably recombining, and the uric acid

is supposed to be eliminated through the maternal emunctories. The residue left in the maternal blood current are chemical units which combine and recombine according to biochemic laws to form intermediary and end products, to be excreted or to perform further duties in the economy, and only become deleterious when they accumulate or are produced faster than they are eliminated. Then during all mitosis we find liberated uric acid in proportion to all metabolism. During the first four months of pregnancy both fetal and maternal metabolisms are most rapid, and it is usually during this period that nausea and emesis are most distressing. This period of active development of the fetus and deposit of fat by the mother is the time that the heaviest demands are made for material for cell growth, and consequently increased desire for food by the mother. Nature makes provision for the normal elimination of these by products or leucomaines, *per vias naturalis*, and this is why we see the passage of so much urine during this period. If this excessive urination were due to pressure against the bladder by the growing uterus, we would have a smaller quantity passed at night, but the kidneys secrete at night as well as day, and we find the bladder responding to the irritation of the acid urine at night as well as during the day. When cell metabolism is active and heavy, demands are made for material, over-ingestion of food results, and we have then what Ewald calls hyperhydrochloria, and this results in transitory nephritis, which is first shown by hypersecretion and then by hyposecretion of urine. During this temporary over-loading of the digestive tract, both ptomaines and leucomaines are formed, which depress the nerve centers. Fetal metabolism is progressing, as is also maternal deposit of fat; and toxins, designed for elimination, are formed in abnormal quantities and accumulate as a result of defective elimination, the temporary or transient nephritis incapacitating the organs for the full discharge of their physiologic functions. This cycle of vicious influences is repeated day after day in various degrees. Emesis and nausea are worse on awaking in the morning, both as a result of the centers responding more readily then to irritations, and also because during the quiescence of the functions of the skin and bowels there has been an accumulation of this toxin. But little elimination has taken place while fetal and maternal cell metabolism has been active. What this substance is we dare not hazard an opinion, further than to say

that probably it is an alkaloid of undetermined chemical formula, a leucomaine of the uric acid group. We know that the ptomaines, the alkaloids resulting from action of bacteria, differ in their chemical formulæ, as they are found in different media and under different conditions, and also their physiologic phenomena differ as do their chemical formulæ. The same is true of the leucomaines, the alkaloids which are formed during cell metabolism. We find some of the ptomainic and leucomainic alkaloidal substances, when experimented with, producing one effect, and another another effect, showing that some are irritants to one center and others to other centers. We have the same conditions resulting from the vegetable alkaloids. Why morphia relieves pain, or why strychnia acts specifically as it does, and why apomorphia produces vomiting, we do not know, but we do know that when these alkaloids are given in proper quantities and under proper conditions, we can rely on and expect certain physiologic phenomena to follow, which are peculiar to the drug administered. The degree of nausea and vomiting depends on one of two conditions:

1. The increased irritability of the vomiting center.
2. The increased accumulation of the irritant.

Increased irritability may result from a want of nutrition, or from prolonged irritation by peripheral irritants or central irritants. Increased accumulation arises from deficient elimination or excessive generation of the irritant.

The anabolism of fetus and mother gives us increased generation of the irritant, and the nephritis accounts for defective elimination. These are axiomatic facts that need no theory to prove them. Summarizing then, we reach these conclusions:

1. That the *casus casi* of vomitus gravidarum is not a reflex, but the by-products of anabolic cell metabolism, which act centrally, as apomorphia does.
2. That the nephritis, which is a usual concomitant of vomitus gravidarum, and is itself the result of hyperhydrochloria, is the cause of deficient elimination. Of course the postulate that defective nutrition is a result of the above conditions is an accepted fact.

The therapeutic endeavor should be directed to relieve the cause. This is best done (1) by lavage of the stomach thoroughly three times per day with alkaline antiseptic solutions; (2) baths



and massage to enable skin to assist the kidneys; (3) by exercising freely in open air; (4) by diet of proper quantity and quality.

The induction of abortion to relieve vomiting of pregnancy I have never seen justifiable, and is only mentioned here to be condemned.

Masonic Temple.

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## THE SURGERY OF STRABISMUS.

BY CHARLES H. BEARD, M.D.

CHICAGO, ILL.

In response to the courteous request of my friend and colleague, Dr. E. C. Ellett, of the *MEMPHIS LANCET*, that I write for that journal a description of my advancement operation and other surgical methods in dealing with strabismus, I herewith submit the following:

The operation referred to, and the first one, so far as I can learn, in which only a single suture was employed, I devised, while acting interne at the Illinois Charitable Eye and Ear Infirmary, more than eleven years ago. The first published account of the procedure—a very brief one—appeared in the *American Journal of Ophthalmology* for March, 1889; then, in the same journal in 1895, a more elaborate description; and still later, it was further treated of in a pamphlet issued by the *American Medical Association Press* in the autumn of 1896. Within the past three or four years several articles in the ophthalmic literature of Great Britain and the continent of Europe have been brought to my notice, in which the writers told of original methods very similar to, and in one case—viz., Dr. N. Lindo Ferguson (*Transactions of the Ophthalmic Society of the United Kingdom*, vol. 17, p. 336)—practically identical with this, though it is a pleasant reflection that they all lack priority.

In most instances the first part of the operation consists in the making of the neatest possible transverse buttonhole of the tendon of the muscle opposite to that which is to be advanced. The object of this partial tenotomy is to cause a temporary breaking of the power of that muscle, so that the advanced tendon may have a relatively undisturbed period during which to make its new insertion. If done with the minimum of traumatism, we accomplish

this end, and the ultimate status of the muscle is precisely as before—neither set back, nor in any manner crippled. The tiny forceps, scissors and hooks of Dr. Stevens of New York go a long way toward making this step according to these requirements.

Here is the method I have adopted for the making of this buttonhole. I prefer to make the operation without a general anesthetic whenever practicable. Prop the eye wide open with the blepharostat, take a pair of mouse-tooth forceps sufficiently opened, and place their points on the conjunctiva, one point at the insertion, the other back of it and a little to one side of the middle; bear down firmly, and close the forceps so as to pick up the conjunctiva, Tenon's capsule and tendon, all in one vertical fold. Now, with blunt scissors, carefully cut the fold transversely, not too extensively, and exactly in line with the center of the tendon. On peering at once into the incision the practiced eye can usually detect whether or not the three layers are snipped. Still holding the forceps and pushing them to one side, a small hook, *well curved in the bend*, is put point downward into the little opening in the center of the tendon, the fibers uncovered of conjunctiva and capsule, and divided with Stevens' strabismus scissors as close as possible to the insertion and *almost* to the border. Then the other half of the tendon is taken up and treated in the same way. One must be sure of his ground at every step in order to *know* that he neither cuts through either border of the tendon, nor wounds the tissues unnecessarily. A number of times, however, I have left untouched the muscle toward which the eye deviated.

Passing now to the advancement proper: The patient is told to look far to the opposite side; with mouse-tooth forceps the conjunctiva, and only this membrane, is picked up in a vertical fold, well back of the insertion of the muscle; with small, straight scissors, slightly blunted at the points, a snip is made across the fold, exactly over the center of the tendon, and the incision thus begun is carried forward horizontally till it reaches the margin of the cornea. After the conjunctiva, the anterior prolongation of Tenon's capsule is picked up and divided in the same way; then the episcleral tissue, if there be enough of it, is in like manner incised, so that a furrow is opened, whose bottom is the naked sclera, and along which the cut tendon is to slide. By so doing one reaches the tendon by positive stages, neatly and discriminately, and avoids

giving it an unguarded snip, which is possible with too heroic cutting. The tendon, being now well in view, is slightly lifted by the forceps, and a Stevens' hook inserted beneath it, as close as can be to the insertion, and not a great, lumbering hook shoved far back through the opening, point down, then made to turn a somersault somewhere in the orbit, giving the globe a vicious rake, and landing, point up, beneath the muscle. All such gouging and prodding behind the insertion tend to increase the extent of subsequent capsular adhesion, hence to lessen the efficiency of the muscle's action. No advancement forceps are put on to chew up the tendon—an assistant holding the hook until the suture is placed. This last is of No. 1 braided black silk, and is double-armed—i. e., has a needle at each end. The needles are as fine as will barely carry the thread, and are straight two-thirds of the way from eye to point, from thence slightly curved. As a necessary precaution the needles should be tested to see that they are quite sharp. Both needles are passed downward through the tendon (see Fig. 1), at a distance from its insertion proportionate to the degree of effect desired, one near the upper, the other near the lower border, and the loop or stitch thus formed is drawn down snugly upon the tendon (or for the present it may be left standing up somewhat, not drawn entirely down). Then, taking the upper needle in the holder, the conjunctiva and anterior capsule are lifted by the forceps, and the needle passed beneath these membranes, pretty well forward, then plunged into the episcleral and subcapsular connective tissues, and plowed along until a point is reached opposite the vertical meridian of the cornea or beyond, and fully three to four millimeters from the limbus, where the needle is brought out. Merely placing the suture beneath the membranous coverings of the globe *will not suffice*; a much firmer support is required; hence the needles must be quilted through the episcleral—or, better still, superficially through the scleral—tissue. Notwithstanding the sharpness of the needles, no little exertion is needed to force them through the dense fibrous tissue, and in doing so the globe must be steadied. To grasp the conjunctiva and capsule, to this end, will not do, as these membranes will tear; so I take hold, with strong broad-jawed forceps, of the tendon at its insertion, even including the hook as held by the assistant. Precisely the same is done by the other needle below. Now obviously, if the ends of the thread were here tied, the suture

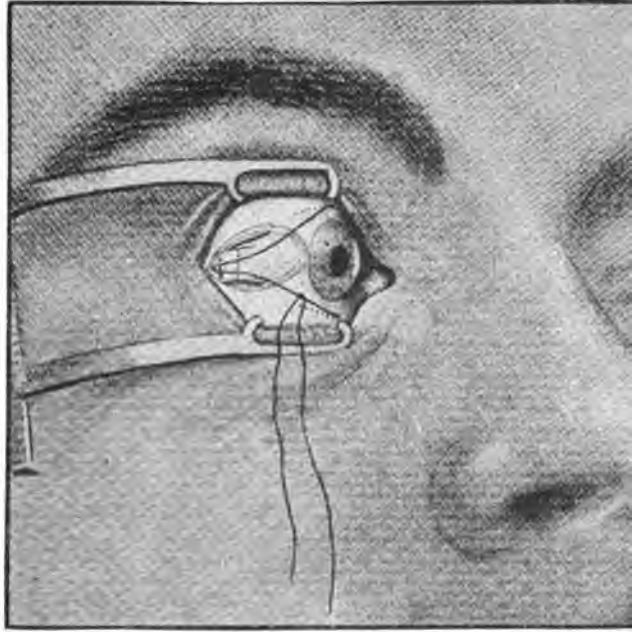


Fig. 1

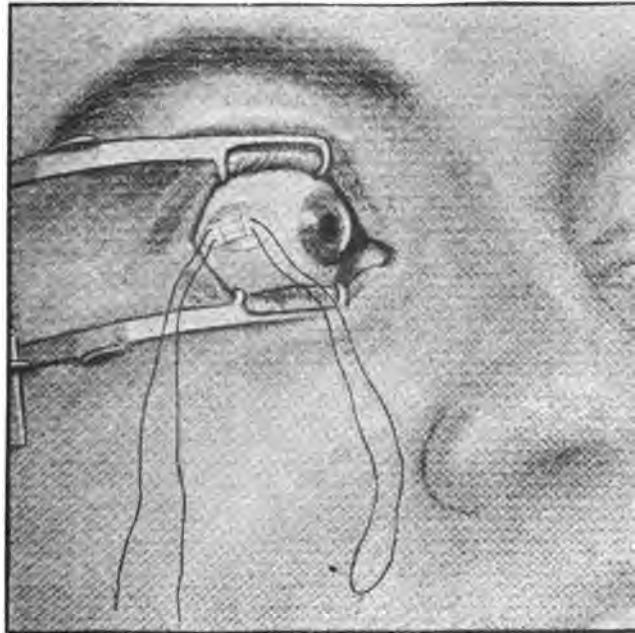


Fig. 2



would lie across the cornea; instead, however, the upper needle is again placed in the holder and passed from behind under the loop or stitch that lies vertically on the tendon (see Fig. 1), and one must be quite sure that the needle passes *under* the thread, and not *through*, even the least strand or fiber of it; for this would cause a snarl in drawing up the suture, and do away with one great feature of this operation—that of a perfect sliding pulley. To make sure we had better include a little of the tendon here, or else leave the loop standing up a little, as suggested above, so that we may see clearly what we are doing. It is better to make an invariable rule of using the upper thread for this step—as, in the first place, the knot does not lie beneath the sensitive upper lid, and in the second the removal of the suture is made simpler and easier. The parts have now been threaded, so to speak, and we proceed to divide the tendon. The thread is gotten out of the way of the scissors—if need be, held out of the way by an assistant with a strabismus hook; for, to cut it in two, were awkward in the extreme. The hook beneath the tendon is taken by the operator, and with very delicate scissors—Stevens' are excellent for this purpose—the tendon is completely severed (see dotted line, Fig. 1); next the stump of tendon at its insertion is seized by the forceps and cut off even with the sclera. The latter step serves two very important purposes—it removes an obstacle to the sliding forward of the tendon, and prevents an unsightly lump at the site of the operation. Then, as to the tying and tightening of the suture, several points must be observed. One may have his assistant rotate the eye toward the muscle or not, but the patient should not be told to attempt such rotation. It is essential that the loop across the tendon should remain tightly drawn down; to insure this, and at the same time obviate any tearing up of the track of the suture where it lies deeply embedded under the conjunctiva, take hold of the upper thread with the dressing forceps, and the lower one with the fingers, just where it emerges above and below the cornea, and pull, not back in the direction of the advancing muscle, but away from it (in Fig. 1 toward the nose). Having in this way drawn the muscles well forward, the assistant "takes up the slack" of the end of the thread which passes beneath the loop, gives it to the operator, who lets go with his dressing forceps, and ties the suture. After passing the end through twice in the usual way, the final tighten-

ing up is done; and it probably is better here to have the helper rotate the eye toward the advancing muscle, but taking care to do so as nearly as possible in the horizontal plane.

In this procedure one notes certain most commending features of this operation: The tension being equal on all the thread-bearings, the advancing tendon is drawn neither up nor down, but comes forward in a straight horizontal line—a line coinciding with that of the longitudinal axis of the muscle, and consequently with its action. This effect is next to impossible with a multiple suture operation. Moreover, the pull being from points so far forward as the vertical diameter of the cornea, or beyond, the maximum of advancement can be obtained—that is, the cut end of the tendon can, if desired, be drawn up to the margin of the cornea. Certainly no such degree of advancement can be accomplished by any suture, or combination of sutures, where anchorage is given the same in tissue lying between the cornea and the operated muscle. To get very decided permanent effect after advancements, one must as a rule strive for even more decided primary effect—in other words, for over-effect. As to the degree of primary effect, I believe one must be guided solely by his judgment, since to attempt actual measurements and calculations—as practiced by Schweigger, for example—seems to me, in view of the yielding nature of the tissues holding the thread, to be rather an absurd procedure; and as I believe it best to *advance* the corresponding muscle of both eyes, in the great majority of cases, and not to materially *shorten* the muscle by resection of all or the greater part of its tendon, the cut end of the tendon must be gotten past the point of the original insertion, and there given a new hold upon the globe. I have demonstrated in quite a number of my cases that this had actually been accomplished. One may leave the suture tied in a long bow-knot, the shorter end of thread being always the one which controls the loop, so that after the lapse of twelve to sixteen hours, if for any reason there be occasion for modifying the effect upon the eye, the last part of the knot may be united, and the suture either tightened or slackened, as desired; and in any but dispensary practice this will do excellently. On first removing the bandage, whether one wishes to shift the suture or not, the long ends and loop of thread, which have been till now fixed by the dressing just outside the nearest canthus, are before rebandaging cut off close to

the knot. The suture is allowed to remain in the eye from eight to twelve days—the dressing being renewed during the time at intervals of about forty-eight hours. Only the one eye is ever bandaged.

Not among the least of the advantages of this operation is the facility with which the suture may be removed. Strange to say, I have observed more nervous dread and flinching on the part of the patients relative to the taking out of the thread, than to the making of the operation itself. One has merely to grasp the knot with delicate dressing forceps, cut the thread to one side of the knot, it does not matter which, and it comes readily away. If the knot itself is not seized, one risks attempting to pull the same through the tissues. The suture that holds the tendon also serves to close the conjunctival incision. So effectual, indeed, is this closure that I have never seen a granulation button here, while at the site of the partial tenotomy which accompanies the advancement, although the incision there is much smaller, the omission of a closing suture often results in a granulation tumor at that point.

Owing to the fact that strabismus is usually a binocular affection—not as to the deformity itself, but as to the muscular defect which permits the deformity—a goodly proportion of one's cases should have both faulty muscles advanced. In the writer's practice this has been done in about fifteen per cent. In cases of children, however, there should be an interval of at least one year between the operations. In no case should surgery be resorted to where there is a fair chance for correction of the strabismus by other means. Not a few of the patients one sees have divergent strabismus the result of a tenotomy, or tenotomies, for a former convergence. In view of the atrophic state of the tenotomized muscle, it has been my custom in dealing with them to advance the entire aponeurotic envelope along with the tendon.

Fig. 2 illustrates an operation which I hit upon some five or six years ago, which is adapted to certain cases where shortening of the muscle, and not advancement, is desired; though I must admit I have rarely found occasion to practice it (for it must be borne in mind that muscle shortening and advancement are not identical. The folding or looping up of the tendons, so popular among certain eye surgeons, both in this country and in Europe, is a shortening, and not advancement.) Here also the suture is a double-



armed one, the needles being of a half-curved variety, and very fine. The primary incision is the same as in the advancement, but less extensive. In this operation the advancement forceps must be used. This instrument fixes the tendon midway of the parallelogram included between the vertical lines (Fig. 2). The tendon is then divided at the point occupied by the line nearer the cornea, and the forceps given to an assistant. Catching hold of the stump of tendon with mouse-tooth forceps, the needles are passed down through the insertion, hugging the sclera, one near the upper, the other near the lower border. They are then carried beneath the tendon, without crossing the thread, and brought out correspondingly from below, and far enough back of the fixing forceps to insure a firm hold; the loop, however, is not drawn down, but is left very long, as shown in the drawing. Here the operator takes the forceps from the assistant and cuts the tendon at the point indicated by the other vertical line, thus resecting a portion. The long loop and the two ends of thread are then tied in one knot, and the cut ends of the tendon nicely butted together. The improvement claimed for this over certain other shortening operations lies in the fact that the thread embraces and supports the united ends of tendon, both in front and behind, so that they are kept in nice apposition, and not inclined to stand up in a pout.

There is, in this connection, one other operative procedure it might be well to mention. This I resort to in the small class of cases that require a complete tenotomy in conjunction with the advancement. In certain elderly subjects, when the squint has been of lifelong duration, and even exceptionally in younger ones, particularly those with congenital strabismus, the muscle toward which the eye turns (commonly the internus) is actually too short; so that the eye is practically devoid of abduction, either voluntary, or when an attempt is made to force that function with the fixation forceps. This condition, which can readily be detected by the limited rotation of the eye under the forceps, is exceedingly rare—the writer having encountered it not to exceed six times in as many hundreds of operated cases. To attempt advancement of the opposite muscle without entire severance of this short one would be to produce an unwarranted degree of exophthalmos—an effect that ordinarily does not occur.

This operation I have called a curved tenotomy, and is similar to

the advancement—though the object in this instance being to drop the tendon back a definite distance and there fix it, the thread is not carried forward at all, but is brought out above and below in vertical line with, or very slightly in advance of, the point where it is put through the tendon, and obviously, as there is no cornea to avoid, the maneuver of passing the upper end under the loop lying on the tendon is omitted. The tendon is cut at the insertion, and the muscle dropped back to the requisite extent, and the suture tied. Of course the cut end of the tendon does not again unite with the globe—that organ being as sleek and smooth back of the insertion of the tendon as a billiard ball. In view of this fact we must leave the capsular wrappings of the tendon undisturbed to the utmost practical extent. It is unfortunate to be compelled to make such a “force-put,” and it were a pity we have not devised a method of piecing out the muscle thus set back.

Some few of my confreres in ophthalmic practice, on reading as to the technic of the advancement operation herein detailed, have conceived that it is complicated and difficult. This impression has doubtless arisen from my having dwelt at such length upon the minutiae of the operation, upon which success depends. As a matter of fact, it is one of the simplest of procedures. It is, moreover, one of the safest. There is usually some superficial reaction, but in all my experience I have seen but a single case which promised trouble. This was that of a dispensary patient, who reported on the fourth day after the operation with septic tenonitis at the site of the incision. The process was promptly arrested before any damage resulted. My experience with the operation refers to a great number of cases, many of which I have had under observation for from five to eleven years, and I can affirm that the results have been most gratifying, both to patients and to operator. I would therefore confidently and heartily recommend it to the profession. The day of the tenotomy, pure and simple, as a rational remedy for the cure of strabismus, is past. Its mangled victims have too long paraded their horrors, such as the paralyzed muscle, the secondary or opposite kind of squint, the retracted caruncle, and the ghastly exophthalmos. The day of the advancement is at hand—*fort mit der tenotomie*.

34 Washington Street.

## LUDWIG'S ANGINA—WITH REPORT OF CASES.\*

BY ROBT. W. TATE, M.D.  
BOLIVAR, TENN.

This is a common affection and worthy the notice of surgeons, as well as general practitioners, especially the latter, as it often comes before them for treatment. It is dealt with very disparagingly by textbooks, and but few, if any, articles appear in our journals. It is a violent form of inflammation affecting the areolar connective tissue of the neck. From an examination of the anatomy of the part, it is plain to see why it is that inflammation causes so much trouble confined under a thick, inelastic sheath, as is found in the fascia of the neck. This fascia is one *pons asinorum* of the medical student, and from my own observation but few understand it when they leave college. As the other fasciæ of the body, it is divided into a superficial (which does not concern us especially) and a deep layer. This last is subdivided into numerous lamellæ, which form the sheaths of the muscles, vessels and nerves, and, where it is strongest, forms ligaments and pulleys over which muscles have to act. Its attachments about the face are the zygomatic arch, covering and forming the fascia for the masseter muscle and parotid gland and the body of the lower jaw to the symphysis, where it joins the same on the other side. This layer continues uninterruptedly over the anterior surface and sides of the neck to become attached to the clavicle, sternum and interclavicular ligament below where it meets its fellow from the other side. It is pierced by but few blood vessels, and just before its attachment to the sternum the external jugular vein—the principal of these—passes through it. This layer includes the sterno-mastoid muscle in a thick sheath, from the under surface of which is given off a lamella, which goes behind the esophagus, forming the prevertebral fascia. This latter separates the neck into an anterior and posterior division, with but little communication. This anterior division of the neck is again divided into lesser divisions, which contain the muscles, nerves, etc., and form their sheaths. Different layers of this cervical fascia are continuous with the costocoracoid membrane, sheath containing the axillary vessels, and

\* Read before West Tennessee Medical and Surgical Association, Jackson, May 25, 1899.

fibrous covering of the pericardium, thence into the mediastinum. It can be seen that pus, having gained entrance under this sheath, as strong as a ligament, sets up violent inflammation of cellular areolar tissue (Ludwig's angina), or burrows for a variable distance from the point of entrance, and forms a fistula. These two results depend upon the virulence of the pus and the physical condition of the patient.

I will report a case illustrating the virulent action of pus, while in the *American System of Dentistry* there is the report of a case where pus from a chronic alveolar abscess at the root of the second superior molar tooth became entangled in the fibers of the masseter muscle, and under its sheath continued downward and backward to the border of the trapezius muscle, where it discharged on the skin. When pus gets under this sheath, it is not in accordance with its nature to escape through it, but rather follows a course of least resistance. Neither alveolar abscesses opening on the face under the lower jaw, suppurating lymph glands, nor any of the superficial abscesses on the neck, are included in this subject. It is most commonly secondary to the following conditions, but may be primarily due to colds:

1. Alveolar abscesses are the commonest cause. Pus forms at the bottom of a carious tooth (apical pericementitis) and goes through the cancellous bone tissue surrounding the tooth socket, and separates the periosteum from the bone. The cervical fascia is attached to the bone by being closely interwoven into the periosteum. When the pus separates the periosteum, it also raises the fascial attachment and breaks through under it—being assisted in this course by gravity. This is the unusual course for an alveolar abscess to take, as they usually rupture either at the side of the crown of a tooth, on the gum, or on the face. The abscesses at the roots of the molar teeth are the ones usually causing the trouble.

2. Adenitis is a common affection, but an uncommon cause, of Ludwig's angina. When inflammation starts in a gland, this irritation causes an inflammatory thickening of its own sheath, which walls it off from the surrounding tissues. This is especially applicable to tubercular adenitis. There is a small space filled with areolar tissue at lower part of the neck, formed by the separation of two layers of this deep cervical fascia, which contains one or two lymphatic glands. Inflammation starting here would set up cellulitis.

3. In otitis media pus enters beneath the fascia forming the sheath for the sterno-mastoid muscle at the mastoid process.

The other causes producing this result are such as stomatitis (causing abscess of the submaxillary gland), diphtheria, suppurative parotitis, injuries; and as a sequel to infectious diseases are notably typhoid fever, scarlet fever, measles, etc. Pyemia, periostosis of inferior maxilla, and uncleanness of the mouth, explain themselves.

*Symptoms.* The first symptoms, being the same as an ordinary superficial abscess, or those of the primary affection, cause no alarm; but when constitutional symptoms, those of septicemia, and symptoms of pressure upon the trachea, larynx and mouth, appear, the physician is called. The temperature is found to be between  $103^{\circ}$  and  $104^{\circ}$ , the patient having had a chill several hours earlier; the pulse between 120 and 180; respiration labored and accelerated. There is an inability to open the mouth or protrude the tongue; speech is husky, and there is sometimes salivation, but expectoration is difficult, if possible. The countenance is anxious, and the whole picture is one of severe infection. The neck, either one or both sides, is swollen; this may not be as yet general, but soon will be if left alone, extending so generally that the jaw and shoulders may be in the same plane. Besides the usual symptoms of localized inflammation, of heat, redness, tenderness and pain, there is a brawny induration and an edema that characterize the presence of pus, even without fluctuation. The pain is severe and makes the patient assume a position rendering the neck stiff and locking the jaws. He is unable to take nourishment, as deglutition is very painful, inflammation being around the muscles governing this act. The most important fact to be noticed is that there is not likely to be fluctuation—the usual characteristic symptom of pus—and its absence should not delay proper treatment.

The diagnosis can be easily made from the symptoms, and it is thought unnecessary to make any differentiations.

*Treatment.* The primary condition, the causative factor, should be treated upon general principles, and extension to the neck avoided. But, as we are confronted usually by the secondary condition, it should receive appropriate treatment. This is the same as for all localities containing pus—incision, free drainage, and antiseptics. One thing to be remembered is, that the neck, containing many important vessels and the probability of deep-seated pus, the

method of incision advised by Hilton should be followed: First make an incision through the skin one-half to one inch long, and under the guidance of a grooved director the superficial and deep fasciæ are divided. If pus is not yet found, introduce a pair of artery forceps, closed, to a sufficient depth, and withdraw them opened; introduce a finger to get exact dimensions of pus cavity, when there is one, and then irrigate with an antiseptic solution. An ordinary antiseptic dressing should be applied after insertion of a drainage tube. Subsequently dress daily until there is a vast improvement in the appearance of the neck and the discharge becomes checked. A good dose of calomel and soda, followed by magnesium sulphate in six to eight hours, with quinin the same day of operation and for several days after, are advantageous. Stimulating tonics and nutritious diet should be administered as soon as practicable.

The first case I have to report is one of the severest, and due to neglect on the part of the parents. A child, age  $4\frac{1}{2}$  years, had suffered for twelve days with an areolar abscess. The tooth was extracted four days before she was brought for treatment. The exact tooth was unknown, owing to symptoms of "lockjaw." The parents spoke no English, so I was unable to get a complete previous history. When seen the temperature was  $103\frac{1}{2}^{\circ}$ , respiration 46, pulse 140. Both sides of the neck were equally swollen beyond the margin of lower jaw, and almost to shoulders. She was unable to open the mouth or protrude the tongue; speech was imperfect, and cough frequent, but no expectoration. There were redness and edema over the whole neck, which was hard and doughy to touch. She had to be propped up in bed, breathing labored, and breath very offensive. She had taken no nourishment for three or four days, and the bowels were constipated. A very small amount of chloroform was given, and an incision was made on both sides of the neck, just below the jaw, following the method advised above. Several ounces of foul-smelling pus escaped from each side, and drainage tubes introduced. Nothing else could be done, owing to her extremely bad condition. The child died about four hours after, not responding to stimulation or other treatment. I was fortunate in obtaining an autopsy, and the findings are briefly as follow: The incisions in the neck were enlarged, and tracts and pockets of pus were found throughout the neck, between the muscles, and around the blood vessels; they followed approximately the plane of the cervical fascia. When the skin over the chest was divided, the tissues in the upper anterior part around the base of neck for four or five inches were infiltrated with pus, showing that the pressure was so great that it had broken through the deep and superficial layers of the fascia. In opening the thorax the anterior mediastinum was found to contain several ounces of pus, which was also infiltrated in the tissue around the base of the heart. The lungs were edematous throughout, and bronchioles filled with pus that had been aspirated from a discharging tooth socket. The stomach contained pus that had been swallowed. The socket corresponding to the first lower molar on the right side, was found to be open and communicated with a pus cavity below the jaw.

Case II. S. D. J. asked me to visit his son, five miles in the country, who had been ill about one week, suffering with a sore throat, and gave a history suggesting quinsy. I went prepared to open a peritonsillar abscess with a curved, sharp-pointed bistoury. Upon arrival at his home I found him suffering with suppurating angina on left side of the neck. He gave the following history: For ten days previously he had suffered with pain in the second molar, left side, about which was advised by a dentist to have it treated and save the tooth. The tooth ached so violently that he was unable to come to town to be treated. He suffered this way for one week, and noticed swelling in the neck, which grew worse rapidly, and which was seen the third day after it had commenced. The whole left side was very much swollen, red, tender, and the greatest point of tenderness was one and a half inches below the lower jaw. He suffered from dysphagia and pain running down into chest. His breathing was noisy, and he spoke with difficulty; there was no fluctuation; temperature 104°, pulse 120. An opening was made at point of greatest tenderness, entering cautiously into the neck, and one-half ounce of foul pus escaped. Chloroform was administered. The incision was at least one inch deep. Directions were given to apply hot applications continuously, which were not followed, but a piece of salt pork was applied instead, "to keep the wound running." I am ashamed to state that there were no antiseptics used in this case, for I was not prepared to treat it properly. However, the patient made an uneventful recovery.

I have seen two other cases of Ludwig's angina—one following suppurative parotitis, that was fatal, and the other, that recovered, was from a suppurating lymphatic gland on the anterior part of neck; but I failed to keep a record of these, hence will merely mention them.

I will be glad if in this article I have shown the importance of an early incision in abscesses about the face and neck, and caused the abolishment of treating them with poultices, drawing plasters, healing salves, or the skins from pieces of salt pork.

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### POST HOC, PROPTER HOC.\*

BY W. J. CHENOWETH, M.D.

DECATUR, ILL.

The title of this paper was suggested by reading reports of cures of diphtheria by the serum treatment, many of which, in my opinion, should have been credited to other causes, and some to having *prevented* the disease. To ascribe recoveries to their legitimate causes has been the *pons asinorum* of the medical profession since medicines were first prescribed. There has always

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\* Read at meeting of Illinois State Medical Society at Cairo, May 16, 1899.

been a belief that there were drugs which would cure diseases, if they could be found, hence every new remedy has had the endorsement of the hopeful. And the belief that the termination of a disease was due to the treatment has been crystallized into the adage, *post hoc, propter hoc*, and finds support in the reported cures by physicians and in the advertisements of pharmacists. But the history of medicine, through all of the ages, affords abundant evidence that many supposed cures were demonstrations of nature's ability to resist disease, formerly known as *vis medicatrix naturæ*, now designated *immunity*. Fifty years ago there were no specifics recognized by regular physicians, unless an exception is made in favor of quinin, which was then given as a cure for ague as it is now, but from a different standpoint; then supposed to act as an antiperiodic, now to destroy a parasite. Dating from Pasteur's experiments on ferments, and injections of attenuated virus in the carbuncular diseases of domestic animals, a complete revolution has been affected in the practice of medicine and of surgery. Since that time but few diseases occur which are not treated with specifics. Amongst the most popular is the serum treatment of diphtheria, which is the best known and is trusted by the greatest number. Under the name of antitoxin it is used as a preventive, and possesses recognized curative properties if introduced soon after the poison of the disease is manifested by such symptoms as can be clinically recognized. But as its capacity is limited to neutralizing the toxin, it does not destroy the bacillus. Before antitoxin was known many epidemics of diphtheria were so mild that 50 per cent. of the doctors practicing in the locality where it prevailed would pass through an epidemic without occasion to make a death report. Such experiences are found now. But it was then as it is now, recoveries were credited to treatment which preceded recovery.

Jacobi said in 1880: "In many seasons the mortality is small. Many a year it was not higher than 5 per cent. of all the cases." Of diphtheria affecting the larynx, he said: "Whether it be of primary origin or extends from the fauces, it is nearly always fatal. In severe epidemics the mortality is 95 per cent." This may be explained by Dr. Borgiotto's remark in reference to mortality of the Florentine epidemics in 1872 and 1873: "Owing to incompleteness of the returns, the figures should be looked upon rather



as the relation of the *gravely affected* to the *dead*." Dr. J. H. Etheredge wrote, in 1883: "Alcohol has been given in every case of late years, and I have not lost a case." Dr. Caswell T. Poe, of Grand Island, Neb., in the same year, wrote: "The number of cases treated by me between June, 1876, and October, 1882, was 500; of these 24 died, the cause being paralysis and laryngeal trouble." Dr. Barnard, of Charleston, Ill., "had treated hundreds of cases with the loss of 3 only in ten years." There are scores of similar reports scattered through the medical journals which were published before antitoxin was discovered.

About the year 1860 Decatur, Ill., was visited by an epidemic of diphtheria, during which a number of children died from laryngeal trouble. Drs. Beaman and Trowbridge, partners, practicing in the city at the time, were reported to have treated a great many cases without the loss of one. At a chance meeting of physicians, at which these doctors were present (which happened after the epidemic had passed), they stated that they had treated 600 cases of diphtheria during the epidemic, with a loss of not to exceed 2 per cent., laryngeal cases included. This statement was fully credited, and while the treatment adopted by the doctors was very similar to that of the other doctors, the number and kind of cases included in their estimate was entirely different, they having included all of the cases of sore throat prescribed for because they regarded them as mild cases of diphtheria. Jacobi's estimate of the number of cases recovering in mild epidemics was not excessive, their recovery not having resulted from treatment, as the remedies given were as numerous as the physicians in charge of the cases. And the reason given by Dr. Borgiotto for the mortality in severe epidemics was certainly just. In the epidemic at Decatur none of the physicians, except Drs. Beaman and Trowbridge, considered it necessary to tabulate any case not recognized as diphtheria, while serious cases were looked upon with alarm.

The increased percentage of recoveries in epidemics of diphtheria, is owing to intubation and to a more skillful application of antiseptic treatment. Neither the stenosis of laryngitis nor the septic poison can be cured by an agent proven to have but a single attribute, and that one entirely incapable of antagonizing either of them. An illustration of the relation existing between the bacillus, the toxin and the patient is afforded by comparison with the

effect produced by imbibing water contaminated with the excreta and offal of a party occupying the bank of the stream from which the supply is derived. Removal of the party will prevent further poisoning of the stream. Putting an antitoxin in the stream will neutralize the toxin, and administering an antidote to the person imbibing the water may prevent injury to the organs not yet poisoned. But the person whose organs are rendered functionally incapable of duty must be relieved by other means, if relieved at all. I wish distinctly to state that my objections are not to the remedy, but to reports of cures which will not enable a student to determine whether they were made to bolster a remedy, to destroy a germ, or to cure sepsis. Publishing a large number of cures of diphtheria, the greater part of which have no other claims to recognition than the presence of bacilli found in the throats of persons not otherwise known to have the disease, is misleading, or the theory causing the injection of antitoxin is wrong. The poison causing the disease is not the bacilli, but the toxin generated by them while earning their living around a spot of denuded or weakened membrane, which permits the poison to enter the circulation. And the object of injecting the serum is, or should be, to neutralize this poison. If the antitoxin is injected before visible signs of the toxic effect can be discovered, by what right are such cases tabulated diphtheria? The disease may have been prevented, but I know of no rule of logic establishing prevention as proof of cure. The recognition of diphtheria by bacilli found in the throat, before clinical symptoms raise a suspicion of the disease, are as if a thief should be convicted of burglarizing a house which had not been robbed because he was found hanging around the premises. However bad his reputation, he should not be convicted without, at least, proof that there had been a robbery.

There is so little difference in appearance between parts affected by pharyngitis, laryngitis or tonsillitis and diphtheria that a diagnosis cannot always be made. If antitoxin should be injected because a few diphtheria bacilli are found in the mucus of the throat, and recovery should take place within twenty-four hours, by what right should such a case be called diphtheria? If no bacilli can be found under identically the same circumstances, would it then be proper to ignore the lack of bacilli and class it as diphtheria? It is such contingencies which caused Bokay to say: "In

my opinion, hesitation in the employment of serum is only justifiable in clinically doubtful cases." Employed under such circumstances, is it not indicative of a disposition to bolster a remedy rather than to weigh it in the balance of justice? It is not an exaggeration to say that antitoxin has been credited with antiseptic, antiphlogistic, antitoxic and germicide properties, and that recovery after using it has been sole proof of the claim.

Allowing four days to satisfy the most credulous that antitoxin can neither cure nor relieve the stenosis caused by diphtheritic croup, it can scarcely be credited that if tracheotomy or intubation is permitted at that time it must be preceded or accompanied by injection of serum (which is a specific for diphtheria—a mere name). That I do not exaggerate in this matter, I copy the following from a recent issue of the *Medical Record*:

"Daldy (*British Med. Jour.*, Feb. 11, 1899) reports the case of a 7-months-old child with the history of croup of seven days duration, pulse 154, respiration 76, temperature 99.2°. Croupy cough was present, together with great sucking in of the ribs and of the triangles of the neck. The fauces were natural except for a slight congestion of the ridges of the tonsils. Emetics and hot applications not bringing relief, and the dyspnea increasing, tracheotomy was performed and 1500 units of antitoxin were injected. The dyspnea was relieved, and on the following day a second injection of 1500 units of antitoxin was made. Improvement was uninterrupted, and the child progressed to a final recovery, the tracheotomy tube being removed on the seventh day. Some doubt of the nature of the case was first felt, but examination of the tracheal mucus disclosed the presence of diphtheritic bacilli. It was pointed out that in preantitoxic days diphtheritic croup was almost invariably fatal."

In this case there was not the first indication for the use of antitoxin, seven days having elapsed after the croup was recognized. That stenosis was the cause of the symptoms does not admit of doubt, nor could any other person but a blind advocate of antitoxin suppose that an injection of the serum was demanded. The absurdity is more apparent when it is recollected that although the relief was prompt and continuous, a second injection of antitoxin was made after twenty-four hours. The presence of the bacillus in the mucus of the throat for days, and even for weeks, after the poi-

soned condition has disappeared, demonstrates that it is not a dangerous guest even if disagreeable. Since intubation in this country has well nigh superseded tracheotomy, there is not the same excuse for delaying relief to the stenosis. And the success which has attended the operation in the hands of experienced and skilled operators is a token of encouragement for the future. Already seventeen out of nineteen intubations have been successfully performed, and give promise that skill, antisepsis and experience will do for intubation what has been accomplished for ovariectomy, and that the time is not far off when recoveries cannot be counted by a per cent., the hundred mark having been passed. But the time has not yet come when doctors can invariably determine an antecedent from a causal relation, being too frequently satisfied with the kind of proof which convinced Madam Blaize that her amatory conquests were secure with royalty:

"The king himself had follow'd her  
When she had walk'd before."

*Summary*—Cures of disease, at all times, have been more frequently credited to antecedents than to causes.

Epidemics of diphtheria, occurring before antitoxin was known, produced no greater mortality in mild cases than they do at this time. Severe cases caused by sepsis are not controlled by antitoxin, and stenosis, from laryngeal deposit, cannot be relieved except by mechanical means. Antitoxin has but a single specific effect, that of *neutralizing the toxin*, and claims to having done this must be established by the fact that the clinical symptoms indicated that the toxin had affected the system. The presence of diphtheritic bacilli can only be corroborative and not pathognomonic.

Diphtheritic croup may be prevented by administration of antitoxin, but cannot be cured by it.

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FRANCISQUE COTTE's alleged consumptive cure by the cataphoric use of formaldehyd is probably a fake. It was refused a place on the program of the section of General Medicine and State Medicine at the American Medical Association, and was refused when offered for publication to the *Journal of the American Medical Association*. Nevertheless, it was heralded in all the daily papers as having received the enthusiastic endorsement of the Columbus meeting. M. Cotte is a shrewd advertiser, whatever be the therapeutic shortcomings of his "discovery."

# THE MEMPHIS LANCET.

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## EDITORIALS.

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### THE PROPHYLAXIS AND MANAGEMENT OF TUBERCULOSIS.

The most important subject discussed at the last meeting of the West Tennessee Medical and Surgical Association was the prevention and treatment of pulmonary consumption. The Rev. Dr. Powell, of Jackson, in his address, called attention to the criminal ignorance of the general public, not only of the contagiousness of tuberculosis, but of the first principles of the hygienic management of a case occurring in a family. In Mexico even the most ignorant persons have been taught that a tuberculous patient and his discharges must be looked upon with the direst dread; no one would dare to use a towel or drinking cup to which a consumptive has access. The paper of Dr. Penn also dealt with the necessity of systematically educating the laity in this respect. In the discussion the point was made that health authorities should require tuberculosis to be classified as a notifiable disease and disseminate literature dealing with the management of patients. Unfortunately, this has been tried by the Memphis Board of Health without any results. Not a single case was ever reported. The excuse offered was that the friends of the patients were sensitive on the subject and a notification would result in the dismissal of the doctor.

Now it seems to us that the fault lies, after all, with the medical profession. It is useless at the present day to discuss either the

contagiousness of consumption or the policy of conciliating the friends of consumptives. If we have not the power to insist upon the proper isolation of tuberculous patients, it is imperative that we get the necessary legislation, and that as soon as possible. This again brings up the question of politics, and our remarks in a recent editorial on medical legislation apply with equal force to all matters of this kind.

In the meantime, the dissemination of literature and the agitation of this important subject before medical bodies will pave the way to practical results.

The pioneer work done by Flick, of Philadelphia, has, unfortunately, attracted but little attention in the South. The New York Health Department is doing good work, and the citizens of that community have been brought to a fair realization of the dangers of contagion from tuberculosis. The condemnation and destruction of tuberculous cattle is a matter that can, in the South, be best accomplished in cities having hygienic laboratories. If a single dairyman can be induced to sacrifice a portion of his herd by submitting it to the tuberculin test for the distinction and preference it will bring him, the chances are that others will follow suit, and finally the dealers of milk from untested cattle will find it impossible to dispose of their wares. When this has been accomplished the public will be ready for stringent legislation.

Here, again, we wish to call attention to the populistic aggregation that did, or rather failed to do, duty as a Legislature. Before these misfits tried their hands at law-making we had a statute for the condemnation and slaughter of glandered horses and making the loss an expense on the county. This law was *repealed*. The Northern States, on the contrary, are appropriating large sums of money to free the herds from tuberculosis.

Dr. Geddes, chief of the miscellaneous department of the Bureau of Animal Industry, told the writer that among several hundred thousand tuberculin tests the subsequent autopsies invariably confirmed the diagnosis. Surely such a certain method of diagnosis should be taken advantage of.

The next thing to demand our attention is the establishment of sanatoria for the proper isolation and treatment of consumptives. This is desirable, both from a prophylactic and from a therapeutic standpoint.

The direct treatment of tuberculosis is rather beyond the scope of this article. The surgical treatment has been considered in the May number. The various injections have disappointed us for obvious reasons. They do not combat mixed infections, and the antitoxins have been too feeble to accomplish much. The notable paper of Trudeau (*Amer. Jour. Med. Sci.*, Jan., 1899) covers this ground fully. We await with much interest further tidings of the French method of the static application of formaldehyd.

It is to be hoped that the Tuberculosis Congress, at Berlin, will have some practical results to record when the proceedings are published.

For the present we would outline the following plan:

1. Let the medical societies appoint committees to formulate literature and raise money to disseminate the same.

2. Let a campaign fund be raised to be used in literature, both to the profession at large and to the general public, to insure the election of proper representatives.

3. Let a further sum be collected to pay the expenses of a committee to draft and lobby the necessary bills looking to the testing of milch cows, the notification and isolation of consumptives, the maintaining of sanatoria, the prohibiting of spitting in public places, and the education of the public regarding the dangers of contamination by tuberculosis.

Other medical legislation might be secured at the same time without any additional expense.

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### VOLUME III.

With this number the LANCET enters its third volume, and we hope we will be pardoned if we mark the occasion with a word about ourselves. The steady growth of our list of subscribers and advertisers is an evidence of the increasing favor with which the LANCET is regarded, and encourages the editors to persevere in their efforts to produce a clean and readable journal. We do not wish to make invidious comparisons, but would express it as our humble opinion that in amount and character of reading matter, freedom from commercialism and in all manifestations of proper journalistic enterprise, the LANCET is second to no journal in the South. The editors think that the usefulness of the journal will be increased

by a larger number of communications from the physicians in this immediate locality, and these may therefore be expected. The LANCET stands for the best interests of the doctors of the Southwest, and would be glad to receive suggestions or criticisms from any of them, tending to point out ways to increase the usefulness of the journal.

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#### THE MEMPHIS LANCET PRIZE.

The MEMPHIS LANCET Prize of twenty-five dollars for the best paper presented to the Memphis Medical Society between October 1, 1898, and June 1, 1899, has been awarded to Dr. Edwin Williams, for his paper on a "Clinical Study of Chorea." This paper will appear in the next number of the LANCET.

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### REPORTS OF SOCIETIES.

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#### PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

*Regular Meeting, June 13, 1899.*

The President, Dr. B. F. Turner, in the chair.

The following members were present: Drs. Turner, Griswold, Sale, Crofford, Holder, Ellett, Krauss, Williams, Alfred Moore, Kane, McKinney, Rice, Buford, F. A. Jones, Hughey, Stanley, Webb, Neely, Smythe.

Visitors: Drs. Burwell, of Ebenezer, Miss., Burns, of Decker-ville, Ark., and Wren, of Collierville, Tenn.

Dr. F. A. Jones read a paper on *Pleurisy with Effusion, with a Report of Cases*. In two years' service at the East End Dispensary, Dr. Jones has seen, out of a total of 7000 new cases, over 100 with some form of effusion in the pleural cavity. Fifteen of these cases presented themselves in the last five weeks. From his study of them Dr. Jones makes the following observations:

1. Over 75 per cent. of cases of pleural effusion are tubercular, a fact generally recognized.
2. The condition is apt to be insidious in its development and presents few symptoms to suggest its presence.
3. Many of these cases died of phthisis. The fact was noticed, and Dr. Jones has not seen it in the textbooks, that nearly all the



cases of pleural effusion were complicated with parenchymatous nephritis.

4. In treatment he favors aspiration and reconstructives. Treatment by salts and other depleting agents is not satisfactory, and is too depressing. Four patients were presented, all males, three of whom had had sero-fibrinous effusions, and the other a purulent one. There was little to be elicited in the way of possible cause in any of the cases. The empyema patient walked into the dispensary with temperature  $99^{\circ}$ , a little cough and dyspnoea, and the physical signs of a left-sided effusion. The aspirating needle showed pus, and an opening was made posteriorly by Dr. Holder, and half a gallon of pus let out. The drainage tube is still in, but the discharge is slight and no longer purulent. The sero-fibrinous cases were treated by aspiration and iodid of potash and syrup of the iodid of iron.

*Dr. W. C. Griswold* said that Dr. Jones' experience was certainly unusually large, and remarkable for the good results obtained. He thinks that Dr. Jones is rather partial to iodids.

*Dr. E. P. Sale* was very much interested in the report, and thought the large number of cases seen recently might be explained by the recent prevalence of grippe. He thinks that Dr. Jones' treatment is rational and can not be improved upon. He is not impressed with the value of antiphlogistic and absorption-promoting remedies. He mentioned a case now under observation of septic pleurisy following a four months' abortion. At the time the fetus was delivered the patient's temperature was  $104\frac{1}{2}^{\circ}$ . Two days later pain developed in the left side and a septic endocarditis and pleurisy set up. There is very little effusion, but friction sounds can be heard.

*Dr. T. J. Crofford* asked what number of Dr. Jones' cases were purulent? How many recovered? What was the nature of the operation done for the empyema?

*Dr. S. E. Rice* has seen quite a number of cases of pleural effusion lately, about half of which have been purulent. In one of the latter the diagnosis was only made post-mortem. The patient had been admitted to Dr. Rice's ward at St. Joseph's Hospital, with pneumonia and a pericardial effusion. After six weeks he died, and at the autopsy a small abscess, two inches in diameter, was found at the angle of the scapula; it had ruptured into the pleura,

and formed an encysted empyema about three and a half inches in diameter. He would like to know if symptoms of nephritis antedated the pleural effusion in the cases in which Dr. Jones found nephritis.

*Dr. Wm. Krauss* called attention to the observation of *Williams*, of Boston, who could diagnose effusions by means of the Roentgen ray in the absence of all physical signs. As to the causes of pleurisy, these may be local or general. The local causes result from extensions of inflammation of the lung (pneumonia, grippe, and especially tuberculosis), from the pericardium, mediastinum, and even the peritoneum (liver abscess, appendicitis, etc.); the general causes are such as would bring the noxious irritant through the blood or lymph stream. In general terms, it may be said that inflammation of serous membranes only results from infection or bacterial intoxication. The use of iodids may be open to criticism, since a large proportion of cases of pleuritic effusions are of tubercular origin, and the administration of the iodids would tend to soften the connective tissue barrier to extension of the tubercular foci.

*Dr. Edwin Williams* asked how many of the cases were syphilitic.

*Dr. G. G. Buford* asked if measurements of the chest had been made. *Bartholow* has called attention to hypertrophy of the pleura in chronic cases. He was much pleased with *Dr. Jones'* paper.

*Dr. E. M. Holder* said that in the case he operated on for *Dr. Jones* the intercostal spaces were large and no resection was necessary. An incision was made posteriorly and low down, and a double drainage tube inserted to facilitate irrigation. Sometimes a sound is passed into the first opening and downward, and a second opening made on its tip. In this case the symptoms were very mild. There is still some serous discharge from the tube.

*Dr. Wm. Britt Burns*, of *Deckerville, Ark.*, said that thorough routine examination was necessary to avoid overlooking cases of this sort.

*The President* thinks flatness on percussion is an unreliable sign. In one case he had failed to aspirate because this sign was lacking. Another physician was called who did aspirate and found a pleural effusion. In another case with inadequate physical signs, i. e., diminished expansion and rapid breathing, but no flatness, he aspirated and found a double empyema.

*Dr. Crofford* prefers to make a double opening—one high and

one low—in operating for empyema, and thinks he secures better drainage in this way. The principle is that if air is allowed to enter by the upper opening, the discharges escape more freely from the lower. In answer to a question from Dr. Alfred Moore, he said that he rarely resects a rib. Most of the cases he had in mind were in children. As a general thing his pus cases have done better than the sero-fibrinous ones. He lost a child of his own from sero-fibrinous effusion, it being probably tubercular.

*Dr. F. D. Smythe* said that the presence of fluid in the pleural cavity can always be detected by physical examination properly conducted. The hypodermic needle is used to advantage in determining the character of the fluid only.

*Dr. Jones* said that in negroes a reliable clinical history is not to be obtained, hence he had laid but little stress on that part of the subject. He thinks of writing a textbook on the negro, and could discuss all his diseases under the head of either gonorrhea, syphilis or tuberculosis. Of his last fifteen cases of pleural effusion, three were purulent and two of the fifteen died. Most of the patients with effusions showed marked tuberculosis of the lungs. In hydrothorax the effusion is bilateral, and the fluid is clear—not sero-fibrinous as in his cases. Hence his cases were not effusions due to nephritis, as Dr. Rice suggests. Tubercular kidney is also common in the negro, and nearly all of the negroes are syphilitic. He is opposed to routine resection of a rib. Under some circumstances, such as obliteration of the intercostal spaces, it has to be done. It is not now considered good practice to irrigate the pleural cavity. He did not measure the chest in his cases. He promotes expansion of the chest by having the patient blow water from one bottle to another, or in children, by playing on a harmonica. He has great faith in physical signs.

*Dr. Crofford* reported *A Case of Recto-Vaginal Fistula*. The patient, who had borne no children, had a rectal abscess which opened into the vagina and rectum, having a small fistula situated low down. After irrigating it a while, with some improvement, the patient was anesthetized, the sphincter stretched, the rectum • cleaned, and packed high up with sponges. The fistula was then injected with iodine, which stained the walls deeply. A knife was then introduced into the fistula and cut outward, making a complete perineal laceration. The track of the fistula, stained black,

was then dissected out and the wound treated as in ordinary complete laceration of the perineum. First, the rectal mucous membrane was united with superficial sutures, then the ends of the sphincter ani were picked up and sutured, and then the other perineal tissues united. The result was perfect. There is now no fistula and perfect sphincter control. The method of simply dissecting out the fistula will not suffice in cases such as this one, where the fistula is low down and the operation wound would be disturbed and healing interfered with by action of the muscles.

*Dr. Smythe* thinks the technique of the operation is such as to appeal to any surgeon's reason and intelligence. In the absence of childbirth as a cause, he would like to know to what *Dr. Crofford* attributed the fistula, and if he thought it was tubercular.

*Dr. Crofford* said he did not, and could only explain it by supposing that some foreign body, as a bone, had come into the rectum with the feces and perforated the rectal wall, setting up an abscess. In reply to a question from *Dr. Williams*, he said that the sutures in the rectum were catgut, and very superficial, serving merely to shut out infection. Silk might be used and left to cut its way out. The perineal and vaginal sutures were silkworm gut, and are generally left in two or three weeks, unless they cause irritation.

*Dr. E. C. Ellett* made a *Report of Cases from Practice*, as follows:

Case I. Keloid of the lobe of the ear.

A colored woman aged 27. Ears were pierced for ear-rings fifteen years ago. No trouble until ten months ago, when the present growth began and slowly attained its present size, i. e., almost round, and three-fourths of an inch in diameter. It is very hard, painless, and attached to the lobule of the ear and the skin of the cheek just below the ear. Removed on May 30th under infiltration anesthesia (Schleich); wound closed with continuous silk suture; primary union; stitches removed on June 3rd. This is an instance of true keloid, or keloid of Alibert, as distinguished from morphea, or keloid of Addison. The growth will probably recur, and the patient has been so informed.

Case II. Gonorrheal infection of a socket through the medium of an artificial eye.

A young man had his right eye removed fourteen years ago and has worn an artificial eye six years. About one week before I saw him his right eye became much inflamed (socket) and remained

so. When he came to me he had to leave out his artificial eye. There was considerable purulent conjunctivitis, the pus containing gonococci. Under boracic acid, irrigation and argonin he recovered in about four days.

**Case III. Hemorrhage following tonsillotomy.**

A young lady aged about 22 complained of accumulations forming in the crypts of both tonsils. These crypts were cauterized repeatedly with the actual cautery without much benefit. She had been previously treated by throat specialists elsewhere with the same result. May 9th, amputation of the left tonsil with serrated scissors and cold snare. Operation completed about noon and strong nitrate of silver solution applied. About 2 o'clock, following a meal, the tonsil started to bleed, and continued in spite of ice water gargling. She returned to the office, and Monsel's solution, peroxide of hydrogen, nitrate of silver, the actual cautery, gallic and tannic acid and ice were applied, and had no effect on the hemorrhage; finally controlled by direct pressure. The bleeding in this case was a free flow, apparently venous. The precise point from which it came could not be located.

**Case IV. J. W. M.,** age 55, was taken sick on Jan. 4th, 1899, with violent pains in his eyes and head, and became in a few days blind. It was said by his attendants that he had neuralgia, and would recover. Dr. N. R. Townsend, of Black Rock, Arkansas, saw him about May 1st and made a diagnosis of glaucoma. He brought him to me May 31st. The case was typical double absolute glaucoma, with dilated pupils, shallow anterior chambers, steamy corneæ, and balls of almost stony hardness. He was absolutely blind and in constant pain, requiring that he be kept under the influence of morphin. In consultation with Dr. Sinclair an operation (iridectomy) was advised for the relief of pain, but declined. He was passing a small quantity of highly acid urine, and was therefore put on alkalin diluents and hot water and eserin (gr. vi to the ounce) locally. The balls became a little softer and the pain so much better that he was able to do without an opiate. The sight did not improve. This case illustrates the disastrous results of a failure to make a diagnosis in glaucoma, since in many cases the sight can be saved if taken in time. Neuralgic pains in the head and eye, with loss of sight, are very apt to mean glaucoma, and in such case an eye surgeon should be consulted at once.

Cases V and VI. Two cases of acute mania following cataract operation.

A negro woman aged 60. Senile cataract extracted from the right eye with iridectomy on the 28th of September. There was no incident in the course of the case until the evening of Oct. 2d, when she became much excited by a woman in the next bed having a hemorrhage from the lungs, and in a short time became maniacal, necessitating her being strapped in bed. She recovered completely in less than twenty-four hours on being removed from the hospital to her former surroundings. A cataract was subsequently removed from the eye without any serious consequences.

A negro woman aged 65. A mature senile cataract, complicated with posterior synechiæ and atrophy of the zone of Zinn, was removed from the right eye with iridectomy on May 29th. There was delayed closure of the wound but no other event until the evening of May 31st, when, without apparent cause, she became maniacal, though to a much less extent than the preceding case. She was removed from her room to the ward and slowly recovered her reason, and at the end of three or four days was dismissed in apparently good mental condition. Holocain anesthesia was used in both cases.

This seems to be a rather unusual complication of cataract operation. Cases have been recently reported by Del Castillo (*El Siglo Med. de Madrid*, Feb. 12th, 1899) and Fromaget (*Annales de la Policlin. de Bordeaux*, 9, 1898). Dr. Minor, of this city, reports one in the *Archives of Ophthalmology*, Jan., 1891, dependent, in his opinion, on the new surroundings, confinement, the maintenance of the recumbent posture, and the bandage. Writers on general surgery have noticed these psychoses following surgical operations.

Dr. Smythe said that in a paper before this society some time ago he had spoken of the greater relative prevalence of keloid among negroes—in fact it rarely occurs in whites. Recurrences have followed removal so invariably, that he has abandoned the operation unless the patient earnestly desires it. He thinks the recurrent growths are generally larger than the primary ones. He has seen keloids develop in the scars left by the pustules of small-pox. Regarding tonsillar hemorrhage he thinks to use the so-called styptics is a waste of time, and prefers to use pressure; this failing, which will be rare, resort can be had to ligation of the external

carotid artery. In one case the latter procedure and transfusion of salt solution was necessary. Recently an ophthalmological acquaintance had related to him a case of acute double glaucoma cured by iridectomy, and three cases of insanity following cataract extraction. One of the last patients jumped out of a third story window. On account of this complication, operators now advocate allowing these patients more liberty.

*Dr. Richmond McKinney* has never seen a hemorrhage following tonsillotomy, but has recently had an annoying amount of bleeding follow amputation of the uvula in a young man. It was controlled by nitrate of silver.

*Dr. Sale* said that in two cases of hemorrhage following removal of tonsils, he had controlled the bleeding by pressure with a wad of cotton saturated with antipyrin, which he thinks is an excellent styptic. The iron salts are worse than useless, and when the bleeding is arterial, mechanical means are by far the best.

*Dr. Ellett*, in reply to a question from *Dr. Alfred Moore*, said that the cavity left by removal of the tonsil was hardly large enough to tampon, and if it had been packed, the action of the faucial muscles would probably have expelled the packing. He had saturated the gauze used as a compress in his case with a solution of suprarenal extract, but was inclined to think the pressure had more to do with controlling the bleeding than the drug, and had not mentioned the latter.

The following gentlemen were elected to membership: *Dr. Bruce Harkness*, *Dr. W. T. Black*, *Dr. J. L. Barton*.

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*DR. LOUISE DROUILLARD*, of this city, relates a peculiar case of masturbation in the *Woman's Medical Journal* for June. The patient, a girl of 20, placed the back of her thumb on her cheek and pressed with the middle finger alternately on the end of her nose and the ear. After a few such manipulations the patient folded her hands and assumed a dreamy, pleased expression for a few minutes. It was discovered that the procedure developed sexual excitement and an orgasm, the patient not being aware of the nature of the act. There were choreic manifestations limited to the hands.

## PROGRESS OF MEDICINE.

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REPORT OF 78 CASES OF PULMONARY TUBERCULOSIS TREATED WITH WATERY EXTRACT OF TUBERCLE BACILLI.—Dr. Karl von Ruck (*Therapeutic Gazette*, Feb., 1899), giving due credit to the advantages of the favorable climate of the Asheville plateau as well as to the systematic employment of hygienic and dietetic methods, in a special institution, shows nevertheless by his results the unmistakable favorable influence of this preparation, which he perfected in his laboratory in February, 1896.

He with many others, notably Professor Koch, have long realized that the bodies of tubercle bacilli contain a soluble substance, a proteid upon which the curative action of all tuberculin preparations and modifications must depend, small and variable quantities of which were thought to enter into the culture fluid from which the tuberculin preparations are made.

Experiments upon animals have shown that the injection of dead tubercle bacilli produce both curative and immunizing effects, but they have always produced abscesses at the point where they were injected and often spurious tubercle in the animals experimented upon, conditions which seemed to preclude their use in the treatment of human tuberculosis.

A solution of the tubercle bacilli, without injury to the curative proteids, was therefore naturally sought for, and in April, 1897, Professor Koch announced that he had accomplished this in the production of Tuberculin R., which was then given to the profession.

Several weeks later Dr. von Ruck announced his success in also making the desired solution, and communicated his experiments and methods in a paper read before the American Climatological Association and published in its transactions for 1897 and also in the *Therapeutic Gazette* for June, 1897. His method of preparation differs, however, from that published by Professor Koch.

Koch's claim that in a true solution of the tubercle bacilli the final perfection of a specific remedy was attained, would appear to be verified by the results which Dr. von Ruck reports.

He treated with his watery extract 20 cases in the early stages,



all of which recovered, with an average gain of 11 pounds in weight, and subsidence of all symptoms.

Of 37 cases in a more advanced stage 27 recovered, 7 were greatly improved, 3 improved, and none grew worse, gaining on an average nearly 13 pounds each.

Twenty-one cases in a seriously advanced stage were also treated, of which 3 recovered, 9 were greatly improved, 7 were improved, only 2 grew worse or died, there being an average gain in weight of 10½ pounds each.

The remedy was also given for trial to Dr. Denison, of Denver, Dr. Taylor, of St. Paul, and Dr. Williams, of Asheville, all of whom obtained good results, Dr. Williams supplying the data of 12 cases treated by him with von Ruck's extract, shows 7 early stage cases, all of which recovered; of 3 cases in the second stage, 1 recovered and 2 were greatly improved, and of 2 far advanced cases, 1 recovered and 1 grew worse.

Comparing his previous results with those obtained with the watery extract in von Ruck's institution he shows the results as follows:

	Cases.	Per cent. recovered.	Per cent. improved.
Treated without specific remedies.....	816	12.1	31.0
Treated with Koch's original tuberculin.....	379	35.5	37.5
Treated with antiphthisin and tuberculocidin.....	182	32.5	46.8
Treated with tuberculinum purificatum (von Ruck)...	166	43.4	39.2
Treated with watery extract of tubercle bacilli (Ruck)	78	64.1	33.3

Full directions are given for the use of the watery extract, the beginning dose being .001 of a milligram, and this is gradually increased to 5 milligrams. There are three solutions, No. 1 containing .01 of 1 per cent., No. 2 .1 of 1 per cent., and No. 100 containing 1 per cent. of the anhydrous extracts.

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THE TREATMENT OF APPENDICITIS.—The *Philadelphia Medical Journal* of June 3, 1899, quotes from the *Lancet* a communication made by M. Poirier to the Paris Society of Surgery in connection with their discussion on the treatment of appendicitis, which has just closed. The physicians, with Professor Dieulafoy at their head, insisted that appendicitis ought to be treated at the earliest possible moment by operation, while the surgeons, led by Professor Tileaux, considered that a waiting policy and medical treatment

were quite sufficient, and that this was especially the case in a first attack. While not the authoritative expression of the Society, this communication virtually reflects the general opinion, and is as follows:

1. There is no medical treatment of appendicitis
2. In acute cases operate as soon as possible after the diagnosis is made.
3. In doubtful cases it is better to operate.
4. In subacute cases it is possible to wait and operate *à froid*, i. e., between the attacks, but most of the members of the Society prefer to operate at once.
5. Suppurative appendicular peritonitis demands instant operation.
6. In slight cases it is less risky to operate at once than to wait and operate *à froid*, and diagnosis, especially in the early stages, is anything but easy.
7. The steps of the operation must vary according to the needs of each particular case; resection of the appendix should be practiced in every case where the search for it does not involve much injury to the tissues. The possibility of a ventral hernia after the operation *à chaud*, i. e., in the acute stage, is not a reason for putting off operation, for the risk of this occurring is less than the risks from waiting.

M. Poirier added that if any definite rules for the conduct of a case of appendicitis had been arrived at, the credit was due to Professor Dieulafoy.

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CRANIOTOMY.—Davis (*Obstetrics*, March 8, 1899), after discussing craniotomy, says in conclusion:

We may again draw attention to the fact that while Cæsarean delivery and symphysiotomy are very successful in uninfected patients, when septic infection is present every chance should be given to the mother, at the expense of the fetus. So greatly does septic infection militate against the recovery of a patient requiring a grave obstetric operation, that it should be an important factor in determining the choice of a method of delivery. While we may regret it, we must admit that unsuccessful efforts to deliver a patient seriously complicates her case. Unless, therefore, we know that such efforts have been made carefully, amid clean surround-

ings and in an aseptic manner, we are justified in assuming that patients who have thus been unsuccessfully treated have become infected. In justice to Cæsarean section and symphysiotomy, these operations must not be done upon improper cases; and among those which are not fit for Cæsarean section and symphysiotomy, cases of preëxisting septic infection occupy by far the most important place.

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SEVEN CASES OF DIPHTHERITIC CROUP—TWO ABORTED BY ANTITOXIN AND FIVE CURED BY ANTITOXIN AND INTUBATION.—R. M. Harbin (*Atlanta Journal-Record of Medicine*) concludes as follows:

1. Numerous statistics prove that antitoxin has lessened the mortality of diphtheria one-half.

2. The remedy is never toxic in its effects, and never causes or increases albuminuria, if properly used, and does not interfere with the use of other remedies.

3. The dose of antitoxin in laryngeal cases should be from 1500 to 4000 units, according to the age and condition of patient.

4. In weak anemic and albuminuric cases its administration should be more guarded, as the restraining effect on the kidneys in one case was due to a faulty administration.

5. Antitoxin favors resolution of the membranes in cases subjected to intubation, lessening the absorption of toxins, and renders an early removal of the tube safe.

6. Antitoxin has a favorable effect on the mixed infections.

7. From a personal observation of three successful out of five tracheotomies and five consecutive successful intubations for croup, my preference is for intubation, except in rare cases.

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THE SURGICAL TREATMENT OF HIGH MYOPIA.—Würdemann and Murray (*Annals of Ophthalmology*, April, 1899) report a case of their own and one from the practice of a colleague in which the clear lens was removed for the purpose of improving the vision and arresting the progress of myopia. After a most thorough and careful review of the literature, the following resumé is given:

1. Surgical treatment of myopia should be limited to those cases over —12 D., who suffer great inconvenience from their correcting lenses. The ideal cases for operation are those of —17 to —18 D.

2. The operation is mainly indicated in young adults.

3. Cases having active disease and changes in the ocular structures, such as progressive myopia, choroiditis, fluidity of the vitreous, or detachment of the retina, are not applicable.

4. The dangers of operative interference are more than counterbalanced by the results to be achieved, which are mainly increase of visual acuity and of the visual field, and more extended use of the eyes which accompany diminishment of the refraction.

The opportunities for observation of high degrees of myopia, particularly of operation for same by the American surgeon, are limited in proportion to those of ophthalmologists in the old world. Even there only about 1000 cases are reported. By individual reports, however, we can add our evidence to the already-proven value of surgical treatment for this class of cases.

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HOW TO INDUCE LOCAL ANESTHESIA BY CATAPHORESIS OF COCAIN.

H. Lewis Jones (*Clinical Journal*, March 8) says that this process as a means of local anesthesia for trivial operations is used as follows: The solution of cocain in guaiacol recommended by Dr. Morton, of New York, is used. It consists of 6 grains of the alkaloid of cocain to the dram of guaiacol. If a little of this mixture upon a piece of blotting paper is placed on the skin, and a current applied through it, the cocain quickly penetrates, and an anesthesia sufficient for the purposes which I have indicated can be produced in about four or five minutes. The positive electrode should be placed on the blotting paper. It should consist of a flat disc of suitable size. A platinum surface is the best, but tin or any other metal that does not easily become corroded will do almost as well. Care must be taken that the metal itself does not touch the skin at any point. The current is then turned on until it reaches about four milliamperes for an electrode half an inch in diameter. At first from ten to fifteen cells are necessary to produce this current, for the solution has a high resistance; but soon conduction improves, and the number of cells may be reduced. A slight pricking pain is felt during the first minute of application, but this gradually passes off, and its disappearance indicates that the drug is commencing to act. It is not necessary to prolong the action more than four or five minutes, nor should the current much exceed four or five milliamperes for the above mentioned size of anode, because

the solution itself is slightly caustic, and may produce a superficial irritation if applied for too long a time. The blotting paper being removed, and the part wiped with a tuft of cotton wool, the operation may be commenced. Common sensation may not be entirely done away with, but the perception of pain is so nearly abolished that the patient will bear the introduction of a needle with calmness.—*N. Y. Med. Jour.*

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**SCARLET FEVER IN MILK.**—An editorial in the *Philadelphia Medical Journal*, vol. 3, no. 14, says that in an unusually large number of cases of scarlet fever occurring in a certain section of Buffalo, N. Y., within three days, investigation showed 21 to be on the route of one milkman. More investigations caused other sources of infection than the milk supply to be eliminated, and 8 more cases developing on the same man's route, an inspection was made of the sources of his milk supply. One of the dairymen supplying him was found to be convalescent from a malady, the nature of which was doubtful, but 4 members of his family had scarlet fever at the time, so it is evident that he had probably had the same disease, and in attending to the milking and shipping during convalescence had sent disease germs to innocent families in the city. A quarantine was at once established, and no more milk from that farm allowed to come into Buffalo, whereupon the spread of the disease was checked and its continuance limited to the families infected. The thorough system of inspection maintained by the Department of Health in Buffalo could well be copied. Every infectious disease must be immediately reported. The premises are inspected and probable or definite sources are remedied. A register is kept of the milk dealers doing business within the city, and every case of infectious disease is credited to the respective dealers.

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**DIAGNOSIS OF SOME OF THE COMMON ERUPTIVE FEVERS.**—Frank W. Wright, New Haven (*Pediatrics*, April 1, 1899), gives the following points:

Smallpox. Two days prodromes with chill, severe backache, headache and high temperature; on third or fourth day eruption occurs, and fever remits. Eruption first macular, then papular, shot-like feel, never vesicular under twenty-four hours. Vesicle

always truly umbilicated, hard to rupture, and becomes pustular in four or five days with secondary fever. Eruption may be in mouth and throat, and usually first appears on hair margin and wrists.

Scarlet fever. Short stage invasion, chill or convulsion, high temperature, vomiting. Eruption first twenty-four hours; fever does not abate with its appearance. Appears first on chest and arms before face. Is efflorescent, scarlet never papules or vesicles, and impalpable to touch. Throat sore, strawberry tongue.

Measles. Coryza, bronchitis for four days, then rash first on face. Temperature does not fall with its appearance. Eruption crescentic, slightly raised. Grissol's differential sign between measles and smallpox is that on stretching skin it is smooth in former while hard elevations are felt in latter.

Chickenpox. Profuse in an adult, may be confounded with smallpox. Differential points are: few hours of prodromes, less severe constitutional disturbances, less headache and backache. Papules last only few hours, not shotty. Vesicles form early and rupture easily. Umbilication apparent, not real, and due to black center in vesicle. Occurs in crops having all stages of eruption, and vesicles do not go on to pustulation.

## BOOK REVIEWS.

Any medical book can be obtained through the *Lancet* at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

**A Review of Recent Legal Decisions Affecting Physicians, Dentists, Druggists, and the Public Health.** Together with a Brief for the Prosecution of the Unlicensed Practitioners of Medicine, Dentistry or Pharmacy, with a paper upon "Manslaughter, Christian Science and the Law," and other matter. By W. A. Purrington, of the New York Bar, Counsel of the Dental Society of the State of New York, and Lecturer on Dental and Medical Jurisprudence in the New York College of Dentistry; one of the Collaborators in a "System of Legal Medicine," by Allen McLane Hamilton and others. New York: E. B. Treat & Co., 1899. Price, 50 cents.

This little book covers decisions rendered during 1898 which affect the professions indicated in the title, and is intended as a sort of an appendix to Treat's Medical Annual for 1898. Medical men are being brought into contact with the law more than for-

merly, either individually or as a profession, and it is of some importance to have at hand a reference book to determine the status of such legal questions as may confront them. The brief for the prosecution of unlicensed practitioners seems to cover every possible form of offense that might arise, and should be the means of promoting a successful and united attack on those who would evade the requirements of the law. As a unique and extremely useful book, we heartily recommend this one, taking it for granted that the law in it is reliably quoted.

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**Saunders' Medical Hand Atlases.** Atlas of Diseases of the Skin, with an Epitome of Pathology and Treatment. By Professor Dr. Franz Mracek, of Vienna. Edited by Henry W. Stelwagon, M.D., PH.D., Clinical Professor of Dermatology, Jefferson Medical College, Philadelphia; Physician to the Department for Skin Diseases, Howard Hospital; Dermatologist to the Philadelphia Hospital, etc. With 63 colored plates and 39 full-page half-tone illustrations. Philadelphia: W. B. Saunders. Price, cloth, \$3.50 net.

While all of this series of atlases that we have seen so far are very good, this is the best. In addition to being an atlas, it gives some very good suggestions on treatment and symptomatology. The first 191 pages are devoted to a description of the more common skin diseases and their treatment. Then are added the colored plates and full-page half-tone illustrations. Some of the clinical pictures portrayed are striking, and as diagnosis in skin diseases depends on objective symptoms, this makes the book invaluable to a general practitioner. It is not a very exhaustive atlas, but comprises all common and many rare skin diseases. It is very neatly bound, and convenient in size. The colored plates are very fine, some of them especially. The one on Lichen Ruber Planus is the most perfect the writer has seen. A few plates are a little highly colored. Altogether, we commend this book very highly, and suggest that at a moderate price a reliable skin atlas is placed within the reach of all students and practitioners.

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**The Newer Remedies.** A Reference Manual for Physicians, Pharmacists and Students. By Virgil Coblentz, A.M., PH.M., PH.D., F.C.S., etc., Professor of Chemistry and Physics in the New York College of Pharmacy; Author of "Handbook of Pharmacy;" Member of the Chemical Societies of Berlin and London; Fellow of the Society of Chemical Industry, etc. Third edition, revised and very much enlarged. Philadelphia: P. Blakiston's Son & Co., 1899.

Decennial revisions of the U. S. Pharmacopeia cannot keep pace with pharmaceutical activity, nor are the various textbooks on the subjects quite adequate to the task of giving us reliable information about the newer remedies, they being necessarily restricted in the number of them which they consider. Therefore the present volume will be found very acceptable as presenting in a concise and convenient form the necessary information concerning the newer remedies. The fact of a third edition being deemed necessary, together with the author's standing, insure the quality of the book. The name sufficiently indicates its character. We commend it as containing in a handy form much information otherwise hard to obtain.

## NEWS AND NOTES.

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DR. M. GOLTMAN returned on June 11th from a two-weeks visit to the hospitals of New York.

THE LANCET expresses its sincere sympathy to Dr. G. G. Buford in the loss of his wife, who died on June 19th.

DR. J. L. JELKS was absent from the city early in June, attending the meeting of the American Medical Association.

DRS. R. W. MITCHELL, F. D. Smythe and W. B. Rogers spent part of the last of May and first of June on the Gulf coast.

DR. E. C. ELLETT, of the LANCET, has been elected a member of the American Laryngological, Rhinological and Otolological Society.

DR. W. T. BRUNNER, chief of the U. S. Marine Hospital Staff at Havana, has accepted the position of Health Officer of Savannah, Ga.

THE *New York Medical Journal* advocates the conferring of legal right of way on the infirm, thus lessening their dangers on the crowded streets of cities.

DR. R. B. MAURY has resigned his position as Gynecologist on the Staff of the City Hospital. He will spend the month of August among the lakes of the Northwest.

DR. THOS. OSMOND SOMMERS, formerly Major and Surgeon to the Second Regiment Tennessee Volunteers, committed suicide in St. Louis on June 19th. Dr. Sommers served Memphis during the yellow fever of '78, and a few months ago was the guest of the Memphis Medical Society, delivering an address on the fevers of Cuba.

THE American Proctological Society has been organized, with the following officers:

President—Dr. Jos. M. Matthews, Louisville.

Vice-President—Dr. Jas. P. Tuttle, New York.

Secretary and Treasurer—Dr. Wm. M. Beach, Pittsburg.

The Society will meet in Washington in May, 1900.

THE Arlington Chemical Company have purchased Granville Smith's picture of "The Country Doctor," which was one of the principal canvases at the National Academy Exhibition. It is their



purpose to exhibit the original at various society meetings and to produce small *fac simile* lithographs, suitable for framing, which will be ready for distribution in the late summer. The copies will sell for ten cents each, and form a suitable companion piece for Luke Fields' "The Doctor," recently sent out by the same company.

The following have been elected officers of the American Medical Association :

President—Dr. W. W. Keen, Philadelphia.

First Vice-President—Dr. C. A. Wheaton, St. Paul.

Second Vice-President—Dr. E. D. Ferguson, New York.

Third Vice-President—Dr. G. M. Allen, Liberty, Mo.

Fourth Vice-President—Dr. W. E. D. Middleton, Davenport, Ia.

Secretary—Dr. G. H. Simmons, Chicago.

Treasurer, Dr. H. P. Newman, Chicago.

Assistant Secretary—Dr. J. A. Jay, Atlantic City, N. J.

Librarian—Dr. G. W. Webster, Chicago.

The next meeting will be held at Atlantic City.

THE College of Physicians of Philadelphia has issued the following notice :

The Fifth Triennial Prize of Five Hundred Dollars, under the Deed of Trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on

"The Various Manifestations of Lithemia in Infancy and Childhood,  
with the Etiology and Treatment."

The conditions are, that the "prize or award must always be for some subject connected with Obstetrics, or the Diseases of Women, or the Diseases of Children;" and that "the Trustees, under this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said Trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia."

The essay, which must be written in the English language, or if in a foreign language, accompanied by an English translation, must be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., before January 1, 1901, addressed to Richard C. Norris, M.D., Chairman of the William F. Jenks Prize Committee.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The Committee reserves the right not to make an award if no essay submitted is considered worthy of the prize.

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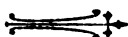
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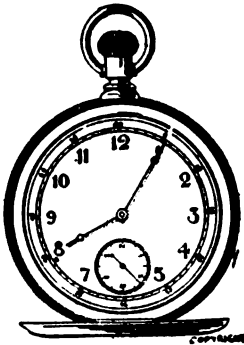
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*And Where Nature fails to make Good Blood,*

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Aye! Get Good Blood—but How? Not by the Alimentary Process. It has already failed to do its work (else the patient would not be sick); and in acute disease must not even be allowed to do the work it can. Stimulate as you will, the whole sum of the patient's alimentary power when fully forced into play, is unable to keep up the nourishing and supporting contents of the blood. There is absolutely but one thing to do; and, thank God, that can be done, usually with success, as ten-thousand-fold experience has proved. That one thing is this: where Nature fails to PRODUCE good and sufficient Blood, WE CAN INTRODUCE IT from the arteries of the sturdy bullock, by the medium of BOVININE.

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**TRY it in Anæmia**, measuring the increase of red cells and hæmaglobin in the blood as you proceed, together with the improving strength and functions of your patient.

**Try it in Consumption**, with the same tests from week to week.

**Try it in Dyspepsia** or Malnutrition of young or old, and watch the recuperation of the paralysed alimentary powers.

**Try it in Intestinal** or gastric irritation, inflammation, or ulceration, that inhibits food itself, and witness the nourishing, supporting and healing work done entirely by absorption, without the slightest functional labor or irritation; even in the most delicate and crucial conditions, such as Typhoid Fever and other dangerous gastro-intestinal diseases, Cholera Infantum, Marasmus, Diarrhœa, Dysentery, etc.

**Try it per rectum**, when the stomach is entirely unavailable or inadequate.

**Try it by subcutaneous** injection, when collapse calls for instantaneous blood supply—so much better than blood-dilution!

**Try it on Chronic Ulceration**, in connection with your antiseptic and stimulating treatment (which affords no nourishment) and prove the certainty and power of topical blood nutrition, abolishing pus, stench, and PAIN, and healing with magical rapidity and finality.

**Try it in Chronic Catarrhal Diseases**; spraying it on the diseased surfaces, with immediate addition of peroxide of hydrogen; wash off instantly the decomposed exudation, scabs and dead tissue with antiseptic solution (Thiersch's); and then see how the mucous membrane stripped open and clean, will absorb nutrition, vitality and health from intermediate applications of pure bovinine.

**Try it on the Diphtheritic Membrane** itself, by the same process; so keeping the parts clean and unobstructed, washing away the poison, and meanwhile sustaining the strength independently of the impaired alimentary process and of exhaustive stimulants.

**Try it on anything**, except plethora or unreduced inflammation; but first take time to regulate the secretions and functions.

**Try it on the patient** tentatively at first, to see how much and how often, and in what medium, it will prove most acceptable—in water, milk, coffee, wine, grape, lemon or lime juice, broth, etc. A few cases may even have to begin by drops in crushed ice.

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# THE MEMPHIS LANCET.

VOLUME III.

AUGUST, 1899.

No. 2

## ORIGINAL ARTICLES.

### GUNSHOT WOUNDS IN CIVIL PRACTICE.\*

BY W. L. ESTES, A.M., M.D.

SOUTH BETHLEHEM, PA.

Chief Surgeon to St. Luke's Hospital.

The recent war has given a fresh impetus to the study of the technique of treatment of gunshot wounds. Recent writings have pretty thoroughly exploited the nature and treatment of gunshot wounds received in modern battles. Rifles, such as are now used by armies in the field, are of small caliber. They use long conical steel or metal-jacketed bullets which are fired at tremendous velocities and at long range. The wounds inflicted by these guns differ both in effect and prognosis from wounds produced by the ordinary cheap civilian pistols which have short, blunt leaden bullets of very low (comparatively) velocities, and which inflict the injuries usually at short range.

Another variety of gunshot injuries in civil practice is shotgun (ordinary fowlingpiece) wounds. These are unique in many respects.

I purpose in this paper to study the nature and character of ordinary cheap pistol wounds and shotgun wounds produced at very short range—wounds produced in most of the cases by a discharge of the piece almost in contact with the wounded part. This study is based upon 56 cases which I have seen and treated in the last few years.

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\* Read before the American Surgical Association, Chicago, May 31, June 2, 1899.



**PISTOL BULLET WOUNDS.**

*Shock.* The first effect of these wounds, even if they are not very serious, is usually marked psychological shock. As a rule the wounded person falls if the wound be anywhere in the head or trunk; he is found to be very weak, and to manifest the usual signs and symptoms of shock, namely, pallor, weak, slow pulse, dilated pupils, slow, sighing respirations, and cool, moist surface.

*Hemorrhage.* This is rarely profuse unless a cavity is injured. As a rule, little blood is seen externally.

*Character of Wound.* The wound of entrance is usually small, round, "punched out" in appearance, and is surrounded by a markedly discolored, frequently dark brown or black, ring of skin, which I presume is produced by the carbonized heated bullet; frequently, in bare parts, the wound is surrounded by an area of powdermarks, that is, grains of black powder driven into the skin. The subcutaneous connective tissue show a much larger wound than the skin, and the muscles show a wound larger than the skin wound and smaller than the connective tissue wound.

The course of the bullet is rarely true. I mean by this, that a pistol bullet below a 38 caliber is very easily deflected and rarely pursues a straight course through the tissues, even when fired point blank. Unless the skull or facial bones be implicated, the bullet is usually arrested or split and deflected by striking a bone. The long bones are rarely shattered by small caliber leaden bullets from ordinary cheap revolvers. The penetrating power of these bullets is usually slight. Out of eight cases of wounds of the thorax, in four only did the bullet enter the thorax; the abdominal cavity is usually penetrated, however, when the aim is point blank. The large vessels have so generally escaped in cases of pistolshot wounds I have seen, even when apparently in line, that I am persuaded the sheath and the elasticity of the vessels themselves deflect the missiles.

**Effect Upon the Viscera or the Contents of Cavities.**

*Wounds of the Cranium.* I have had but one case in this series of penetrating wounds of the cranial cavity. This was a wound through the parietal bone of the right side about 4 c. m. above and in a vertical line with the mastoid process. This wound presented the frequently described and well-known peculiarities of ordinary gunshot wounds of the cranium, namely, small entrance wound,

almost round, splintered internal table, with spicules of bone driven into the cortex, large irregular laceration of the dura, and wide area of destruction of cerebral tissue; considerable hemorrhage and escape of cerebral matter.

*Wounds of the Thoracic Cavity.* Unless the wound is into the middle mediastinum the effect is not necessarily very serious. Of eight gunshot wounds of the thorax I have seen but two cases of serious hemorrhage into the cavity of the chest. As Dr. Matas has shown in a recent study of "Surgical Treatment of Perforating and Bleeding Wounds of the Chest" (*Jour. Am. Med. Assn.*, April 1, 1899, p. 687), wounds of the internal mammary arteries and the intercostal vessels may cause fatal bleeding. Wounds of or near the root of the lung are usually fatal. It was formerly considered that a pistol bullet wound of the chest was necessarily fatal. Besides a few other cases on record, I think the history of the case following will prove that this is not always true.

A. S., a Pennsylvanian, æt. 29 years, a spare, wiry man, about two hours before his admission into St. Luke's Hospital shot himself with suicidal intent in the left chest, using a 32 caliber, cheap revolver. Immediately after the shooting the man is said to have fallen over and was unconscious for a short time. When admitted soon after the infliction of the wound the man was very pale, respiration 40 per minute and slightly jerky in character, pupils somewhat dilated, pulse 108, weak but regular. There had been very little external hemorrhage. Examination showed a small, blackened bullet wound  $2\frac{1}{2}$  c. m. above, 6 m. within the left nipple, and 6 c. m. to the left of external border of the sternum on the fourth costal cartilage. Great tenderness about the wounded area and over the epigastrium. Heart sounds very weak but regular and distinct. The respiratory sounds on the left side were weak, expansion lessened, few moist rales in the axillary region; percussion note showed increased resonance; slight cough and bloody sputum. About ten minutes after he arrived in the hospital emphysema and some swelling were noted about the wound. Examination of the back showed a small, oval, hard mass,  $2\frac{1}{2}$  c. m. below and  $1\frac{1}{2}$  c. m. inside of the angle of the scapula, on a level with the interspace between eighth and ninth dorsal spinous processes and  $3\frac{1}{2}$  c. m. to the left of the spinal column. This was the bullet. Under careful aseptic precautions probing, enough to demonstrate the fact that the bullet had actually entered the thoracic cavity, was done. Then after careful cleansing and disinfection of the wound it was plugged with iodoform gauze, dressed, chest strapped and bandaged, and the patient put to bed. Sufficient morphia was used to obtain the strictest quiet, and he was carefully watched to see that he made absolutely no exertion.

A consideration of this case after the careful examination I gave it greatly puzzled me. It was very clear that the bullet had entered the chest directly over the position of the right ventricle; that it was not deflected and went around the chest walls was clear, as the lungs were undoubtedly punctured. The patient continued to expectorate blood until the 18th, and the physical signs indicated an indurated area of lung later on. The heart beat and its area was mapped out carefully, and all the physical signs

indicated that the heart was directly in the track of the bullet, and there certainly was no transposition of the organ to the right side. On the other hand, there was no appreciable hemorrhage into the pericardium and only little hemorrhage into the pleural cavity. The heart action was weak and rather rapid, but the sound was clear and without bruit, and the man's general condition was not exceedingly bad when he entered the hospital. He improved steadily for twelve days, and no untoward symptoms developed. There were, on the 19th, signs of circumscribed consolidation of the lung in the anterior axillary region, and he had developed a slight but not very frequent cough. On the 28th the man's general condition was very good in every way; his respiration was nearly at a normal rate, heart sounds were clear, the heart beats were felt in the normal position, temperature normal; in short, he was considered convalescent and past danger.

I concluded, by some curious accident, the heart had escaped injury. He wished to have the bullet, which still remained just under the skin in the dorsal region, removed. On this day he was brought to the operation room on a rolling stretcher, where, I think, I had been doing some other operations. He was lifted to the table and under Sleich's local anesthesia I removed the bullet. He did not seem particularly excited, he had made no exertion, he had no pain from the little incision, and yet very soon after he was returned to the ward he became restless and anxious and complained of severe pain in the epigastrium. His restlessness and anxiety increased, and morphia had to be given to relieve his pain. Gradually his pulse rate ran up, he became cyanosed, breathed with difficulty, and felt or looked as if he would die. I saw him about 11 p. m. of this day again. I found his pulse almost imperceptible at the wrist, I could feel no heart beat at all, he was in a clammy sweat, required to be propped up in bed, and had epigastric pain. He seemed almost moribund. Strychnia and morphia were given in generous doses, and after he quieted down the left chest was found perfectly flat on percussion, there were no breath sounds anteriorly at all, and no heart beats could be felt. The next day, and for several days, he had slight fever ( $100^{\circ}$ – $101^{\circ}$  F.); his pulse remained weak and respirations rapid for a number of days, and the epigastric pain was almost constant for about forty-eight hours. The second day after the attack the heart could be faintly heard to the right of the sternum and high up near the third rib. No impulse could be felt. As soon as practicable after the outbreak the chest was explored posteriorly, as well as anteriorly. It was found that respiratory sounds could be heard posteriorly, but bronchial in character; there was decided dullness but nothing like the quality of the sound on the anterior surface of the chest. After the third day the man began to improve steadily. The chest dullness and the weak heart sounds continued for about three weeks, however. July 19th it was noted: "Percussion gives normal note above the third rib; somewhat improved below; patient feels better." He improved slowly, and was discharged August 4th, seven weeks and one day after entering the hospital.

At this time the following physical signs were noted: There was dullness on the whole left chest anteriorly, from the subclavicular region downward; axillary region dull; posteriorly dullness from spine of scapula downward. Auscultation—Bronchovesicular breathing over whole chest except the regions above third ribs, where the breathing was vesicular. Palpation showed very weak heart impulse, felt most distinctly in the epigastric region. No pulsation could be felt in the normal cardiac region. The heart sounds were heard most distinctly  $2\frac{1}{2}$  c. m. to the right of the ensiform cartilage in the epigastric region, thence it could be heard upwards along the right border of the

sternum as far as the fourth costal cartilage. Area of cardiac dullness extends obliquely from left to right from above downward. It begins on a vertical line  $1\frac{1}{2}$  c. m. to the left of the left nipple, and extends to the right 6 c. m. beyond the sternum. Above it runs into the dullness of the lung and cannot be accurately mapped out, but it extends downward 6 c. m. below and 6 c. m. to right of ensiform cartilage. The dull cardiac area measures about  $22\frac{1}{2}$  c. m. by about 15 c. m. The man was still weak and pale; pressure on the epigastrium caused pain. There had undoubtedly been a severe hemorrhage the night after the removal of the bullet, twelve days after the wound. There was no bloody expectoration nor any other evidence of purely pulmonary hemorrhage. One must conclude, it seems to me, that the hemorrhage was most probably from the heart itself. The hemorrhage, at first into the pericardium, had finally burst through this sac, doubtless through the rent made by the bullet, and so escaped into the pleural cavity. A skiagraph taken after the hemorrhage showed what seemed to be the heart surrounded by clotted blood and the pleural cavity nearly full of the same.

As a rule, however, pistol bullet wounds of the heart cause considerable laceration of the organ, and death follows. I have seen but two cases of pistol bullet wounds of the middle mediastinum, and both died.

One case was seen in consultation fourteen days after the wound was made. The bullet was 38 caliber, had entered obliquely from the right near the upper border of the third rib near its cartilaginous junction, and had ranged inward and a little upward. The right pleural cavity was full of blood, and the right lung had been compressed so that an area of about 8 c. m. only in the upper inner corner of the thorax was resonant. When seen the man was very weak, the left lung was already edematous, and respiration was rapid, short, and difficult. I aspirated the right chest and withdrew about 800 c. c. of fluid blood. This relieved the man somewhat. It was proposed to incise, wash out and drain the right chest, if the man should become strong enough, but he died shortly after I saw him.

The other case was almost dead from hemorrhage when seen soon after the wound. He died without any operative attempt to empty his chest.

It would seem therefore that the wounding of large vessels in cavities by low velocities and small leaden bullets is just as bad or worse than by steel-coated, high velocity bullets.

Two cases of through and through puncture of the lung, not near the roots of the organ, recovered rapidly; there was only a little bloody expectoration for a few days, no appreciable intrapleural hemorrhage and very little cough.

#### **Penetrating Pistol Bullet Wounds of the Abdomen.**

As Bull, Senn, Nancrede, Oliver and others have made careful studies of these wounds, and my observations have not added anything material except in one particular, I will only discuss this one point, namely, the great laceration and almost certain fatality of low velocities on solid viscera and large mesenteric blood vessels.

A very interesting case of 32 caliber wound which had entrance in the upper left hypochondriac region and which passed through the diaphragm, both posterior and anterior walls of the stomach, and through the mesocolon, and finally lodged in the head of the pancreas, gave an opportunity to study these effects. A laparotomy for exploration several hours after the injury showed, though the puncture in the anterior wall of the stomach was much larger than the bullet itself, and decidedly larger than the wound of entrance in the posterior wall, there had been no escape of the contents of the stomach. The wound in the mesocolon was a large, ragged one, at least three times as large as the bullet itself, and the pancreas was lacerated to even a greater extent. The abdomen was full of fluid and clotted blood. The man died of hemorrhage which could not be controlled by packing and rapid suturing.

#### **Pistol Bullet Wounds of the Extremities.**

Except in one case I have not found these wounds serious, and this was the only case in which a large vessel of the extremities was injured by a bullet. It was a case of injury to (laceration of) the popliteal space and posterior tibial vessels. This required ligation of the vessels at the point of injury in the popliteal space. The limb was saved, but edema persisted.

The bullets rarely escape from the tissues except when the hand or foot are the parts involved. A very recent case of attempted suicide exhibited the weak force of the ordinary small pistol very strikingly. A muscular young man used his left hand and discharged a pistol with the muzzle almost in contact with his clothing into his right pectoral region. The ball entered the walls of the chest on the outer part of the pectoralis major muscle and ranged obliquely outward and upward. It passed through a part of the deltoid muscle, struck the head of the humerus internal to the bicipital groove, tore off the fascia and periosteum, and without seriously injuring the bone, was deflected upward and lodged near the acromion process of the scapula.

Examination of the bullets in situ before their removal shows that they rarely preserve their point forward direction; they are nearly all more or less lateralized, and I think to this fact is largely due the severe lacerations of the deeper tissues produced by them. Even when the bullets have not struck any bone they are nevertheless considerably distorted.

Very frequently with the bullet, at its point of arrest, are found shreds of clothing which it has taken with it through the tissues. As a rule these shreds are taken the whole course of the missile through the tissues, and are found about the bullet or just behind it. I cannot recall a single case where the shreds were found in front of the bullet.

#### **Treatment of Pistol Bullet Wounds.**

Hemorrhage from the external wound may usually be controlled by plugging with iodoform gauze and firm strapping or bandaging. Wounds of deep vessels demand incision and ligation. Dr. Matas has recently shown the importance of this when the internal mammary or intercostal vessels are lacerated.

I have learned to regard the probe as the most dangerous factor in gunshot wounds after the immediate survival of the patient is assured. As a routine practice, probing gunshot wounds cannot be too strongly condemned. I cannot recall a single case of supuration after a pistol bullet wound when the probe was not used. Furthermore, I have convinced myself and have frequently demonstrated that it is almost impossible to accurately follow the course of a small bullet through the soft tissues with a probe. As a means of locating a bullet the probe is utterly misleading, as it will readily follow along the planes of connective tissue and muscles in directions quite different from the true course of the bullet. When ever practicable the X ray determination is the only proper method of locating a bullet. This method is sometimes difficult, and may prove misleading also, as a case I had sometime ago proved.

About two months after receiving the wound a lad was brought to me with an abscess involving the whole anterior surface of the thigh, and the history that he had accidentally shot himself with a pistol in the upper anterior part of the thigh. He had been probed, cut, and poulticed after the most approved 1862 style of treatment, but the bullet could not be located, and the large abscess and persistent suppuration had undermined his strength and constitution. He was in a low, septicemic condition when I saw him first. Careful fluoroscopic examination seemed to clearly locate the bullet at a certain point inside the deep muscles of the anterior thigh. This region was incised and explored with the result that a balled-up shred of his trousers, which was covered by blood and pus, was found at the locality marked, but the bullet was found several inches further down.

Unless the bullet has entered the abdominal cavity and below the level of the umbilicus, I believe, unless the condition of the patient clearly indicates that some effort should be made to remove

it, no attempt to remove the bullet soon after the injury should be made. Later on, if it be superficial, or if it can be demonstrated that it is doing harm, then it may be removed, if it can be clearly located by X rays.

One superficial feature of pistol bullet wounds I have found almost constantly—and that is a destruction, I think it is by burning, of a rim of the skin immediately about the entrance wound. This will surely necrose. I think this rim should as a rule be excised, and if the course of the bullet is very oblique and superficial, a linear incision should be made through the skin for a short distance, in order to assure proper drainage. Let alone, the undermined skin will almost surely act as an occlusion valve and prevent proper drainage of serum and blood. The wound, and the skin for some distance about it, should be most carefully cleaned and disinfected, then the wound should be plugged with 10 per cent. iodoform gauze and an aseptic dressing applied. After this perfect rest, if possible, of the wounded part should be obtained. Subsequent treatment should be carried out on general principles.

### GUNSHOT WOUNDS

#### Produced by a Charge of Small Shot at Short Range.

The wounds produced by small shot differ most widely according to the range. At present I purpose to discuss the effect of these missiles only at very short range. The wounds thus produced are very formidable injuries and have some peculiarities which do not belong to any other gunshot wounds.

I have had the fortune in a comparatively short time to treat small shot wounds of the face, axilla, shoulder, lumbar region, abdomen, thigh and foot. These wounds have all presented the same general character: 1, a comparatively small, round wound of entrance; 2, extensive laceration of the muscles and deep tissues; 3, violent hemorrhage; 4, pollution of the wound by shreds of clothing and by the wads which are used in loading.

1. *Wound of entrance.* This is round, and as clean cut as if it were produced by a solid ball; indeed it may be said to have been produced by a solid missile, as it is made by the wad or wads used to hold down the shot in the modern loading of shotguns. There are usually very few powdermarks, but if the muzzle of the gun be very close when discharged the skin surrounding the wound of

entrance will be excoriated (burned) superficially. This rarely causes death of the whole skin, however—only severe blistering.

2. *Extensive laceration of the deep tissues.* Within a few inches from the muzzle of the gun a charge of small shot begins to spread out in a sort of conoidal form, the wad apparently occupying the center of the base of the cone. The effect is an explosive one; the tissues are not only mechanically torn by the numerous individual diverging pellets, but are burst asunder by a rending force similar to a gaseous explosion. The combined effect is tremendous. In two cases—one of the thigh, when the wad and most of the pellets escaped through a wound of exit, and the other of the lumbar region, in which the whole charge was arrested at the brim of the pelvis—this effect was most marked. The wound of entrance would barely admit one's thumb, but three inches away a cavity was torn big enough to almost receive one's fist. The penetrating force of a charge of small shot is much greater than that of an ordinary pistol, and the charge is not easily deflected. Thus in a wound of the shoulder, when the charge entered in the outer pectoral region, it went straight to and into the head of the humerus, crushing it utterly. The wad was lodged deep in the cancellous tissue of the bone quite as far as the shot were.

3. *Hemorrhage.* The sheaths of the vessels do not deflect the pellets; they go straight through the vessels and act very much like little punches in cutting out bits of the coats, thus lacerating the vessels in such a way that the hemorrhage is very free and not apt to stop spontaneously. The large number of the pellets make shreds of the vessels directly in their course; this, together with the large destruction of the surrounding tissue, make conditions for uninterrupted bleeding, and furnish one of the greatest primary dangers of these wounds.

4. *Pollution of the wound by shreds of clothing and the wad.* This is a constant result. In every case I have found shreds of clothing deep down in the tissues; they are deposited behind the wad and most of the charge of shot, as a rule.

The depth of penetration and effect of the wad has always been a source of wonder to me. As I said a little while ago, in a case in which the head of the humerus was shattered, I found the wad almost intact deep within the cancellous tissue of the bone; and in every case in which the charge did not escape, the wad was found



well up in the front rank of the farthest advanced pellets and occupying a space about the middle of the spreading charge. Passage through the soft tissues scarcely even bends the wad, and bones affect its symmetry very little. Besides the lacerating effect of the wad, another and very important result of its entrance into the tissues is *infection*. Wounds of the kind under discussion are *always* infected wounds, and will almost surely suppurate. This fact makes them *sui generis* and makes their treatment differ from that of other gunshot wounds—as one of the primary indications must be early, immediate if possible, removal of the wad, and incidentally the charge of shot. After this, careful and thorough drainage must be obtained.

Small shot wounds at very short range are exceedingly dangerous injuries. Hemorrhage is the primary danger. Of 10 cases I have seen and treated, 2 died, both after very severe hemorrhage. While it is true that these injuries must almost of necessity prove fatal when one of the principal cavities of the trunk or the cranium is the part affected, the following case will show that some patients may be snatched from the jaws of death if seen in time and prompt measures be taken to stop hemorrhage and lacerated viscera be removed. This was a case of small shot wound of the abdominal cavity, with laceration of spleen, mesocolon, kidney, and probably the stomach also.

A. B., æt. 45 years, born in Pennsylvania, miller by trade. Admitted into St. Luke's Hospital April 6, 1897. A short time before admission the man had attempted to commit suicide by firing a charge of small shot into his abdominal cavity. Just how he managed it it is difficult to understand, but the charge entered the left hypochondriac region over the eighth costal cartilage 8 c. m. from the median line; it shattered the ninth as well as the eighth cartilage and entered the abdominal cavity. Examination showed the wound of entrance to be a beveled, oval opening about 1½ c. m. in diameter. It was surrounded by a reddened zone of blistered skin. Posteriorly, just above the crest of the ilium and immediately anterior to the quadratus lumborum muscle, was a large crepitating swelling with a puncture of the skin at one place about 3 m. m. in diameter. Through this small puncture blood was flowing freely. When the ambulance reached the man he was found in a puddle of blood and his clothing was saturated with blood. He had to come about a mile to reach the hospital. When he arrived he was almost moribund, was very pale, respiration 40 per minute, and radial pulse was scarcely perceptible. He was evidently bleeding to death. So, rapidly cleansing the abdomen, lower chest and lumbar region, he was chloroformed and an incision made into the abdomen below and parallel with and about a finger's breadth beneath the border of the ribs. The abdomen was full of fluid and clotted blood, which seemed to be pouring out in a steady stream from the left lumbar region. A

rapid examination showed the charge had gone downward, backward and outward. It had deeply furrowed the spleen in a number of lines, had made a large rent in the mesocolon, had missed the intestine itself and gone through the left kidney, and had torn it into shreds from the middle downward. Large quantities of gauze were stuffed into the lumbar region, and while an assistant pressed it well down I made a free opening in the lumbar region from the crest of the ilium upward over the swelling, which I knew marked the location of the charge. I turned out the wad, shreds of clothing and the charge of No. 5 shot, and rapidly introduced my hand down to the kidney, grasped the pedicle, raised the lacerated organ upward and ligated the pedicle *en masse* through the abdominal opening. The double opening gave great facility in the manipulation required for ligating and detaching the kidney. The spleen and mesocolon were also bleeding freely. The man's condition permitted only packing iodoform gauze strips about the spleen and into the laceration of the mesocolon; the ends of these strips were brought out of the lumbar wound. A rapid examination of the stomach failed to discover any puncture of this viscus, and as it was empty at the time I thought it had escaped. Persistent vomiting of dark brown, grumous matter for several days after the operation seems to show that it *was* probably injured. The abdominal cavity was thoroughly flushed with hot saline solution and the abdominal incision closed; the lumbar incision was left with a large opening through which the iodoform packing projected. The wound of entrance was also plugged with iodoform gauze, and the usual dressing applied. The man rallied slowly under large doses of strychnia, rectal saline infusions, etc. For three days the patient vomited quantities of dark matter, which was evidently blood and mucus. He was fed by the rectum, and nothing allowed by the stomach. By the 10th (in four days) the vomiting ceased and did not recur. The lumbar wound suppurated actively, but notwithstanding this the patient made almost an afebrile recovery and without any complication. He was discharged on May 31st, after fifty-six days in the hospital. There was a narrow sinus still remaining in the lumbar region, which led down to the stump of the pedicle of the kidney. This healed very soon, and the patient seemed as strong and well as before the injury.

#### **The Treatment of Gunshot Wounds at Close Range**

Consists in three special indications: 1. Stop hemorrhage. 2. Remove the shot, the wad and shreds of clothing from the tissues. 3. Provide for careful and adequate drainage.

1. Hemorrhage is always severe, as I said, and even in regions not excessively vascular it is necessary to attend very promptly to hemostasis. A little while ago a strong, plethoric girl was shot through the anterior part of the thigh. No large vessel was injured and yet when she reached the hospital a few hours later she was almost moribund from acute anemia. It required most active and persistent use of saline infusions and strychnia to resuscitate her. Packing with gauze and a firm bandage controlled the hemorrhage completely. The wound was tremendous where the charge made its exit on the anterior surface a little above the femoral vessels.

2. As I said, also, the wad and shreds of clothing will always be found with the shot in the tissues when the charge has not escaped through the skin. Curiously enough I have never found but one wad, or at least only those used in retaining the shot in the cartridge or gun barrel (sometimes two are used). The ones over the powder are probably consumed or broken into pieces by the explosion. These wads are always sources of infection, as are also the shreds of clothing. Deep suppuration will result from their presence in the tissues and will be disastrous unless they be removed.

3. As the wounds are always infected, proper drainage must be provided for ridding the tissues of the products of local sepsis. By this means and the careful and frequent use of antiseptics, general infection may be avoided.

#### List of Gunshot Wounds Treated.

1. PISTOL WOUNDS.		Cured	Died
Wounds of abdomen, penetrating, and wounds of viscus .....			2
Wounds of abdomen and hand, no wound of viscus.....	1		
Wounds of arm .....	2		
Wounds of arm and thorax.....	1		
Wounds of cranium, penetrating.....			1
Wounds of face .....	1		
Wounds of foot.....	5		
Wounds of forearm .....	1		
Wounds of gluteal region.....	1		
Wounds of gluteal region, of rectum, urethra and inguinal region .....	1		
Wounds of hand.....	4		
Wounds of inguinal region .....	1		
Wounds of leg .....	4		
Wounds of leg and thigh.....	1		
Wounds of neck (posterior part) .....	1		
Wounds of popliteal space and posterior tibial vessels .....	1		
Wounds of shoulder .....	3		
Wounds of thigh.....	5		1
Wounds of thigh and forearm .....	1		
Wounds of thorax, non-penetrating .....	3		
Wounds of thorax, non-penetrating, and thigh.....	1		
Wounds of thorax, penetrating.....	2		2
Total.....	40		6
2. SHOTGUN WOUNDS.		Cured	Died
Wounds of abdomen, penetrating, and wounds of viscus.....	1		
Wounds of axilla, penetrating .....			1
Wounds of elbow.....	1		
Wounds of face .....			1
Wounds of foot.....	1		
Wounds of lumbar region .....	2		
Wounds of shoulder .....	2		
Wounds of thigh .....	1		
Total.....	8		2

## ENURESIS NOCTURNA IN THE FEMALE.\*

BY GUSTAV KOLISCHER, M.D.

Professor of Gynecology and Obstetrics, Chicago Clinical School.

Enuresis nocturna usually appears in the manner that the bladder is suddenly emptied in one act and without the consciousness of the individual, this occurring in the first hours of sleep or later, and, in rare cases, even several times during the night. This form of enuresis is a very distressing disease, from the fact that the bed of the patient and its surroundings become offensive from the odor of the decomposing urine, in spite of scrupulous cleanliness, and in spite of all precautions.

We distinguish two distinct forms of enuresis nocturna, one of which is caused by distinct anatomic changes in the urinary apparatus, and another in which such anatomic changes cannot be found. The latter form consequently depends on a nervous or tropho-neurotic cause. The anatomic conditions which can produce an enuresis nocturna are the following: Conglutination of the glans clitoritis with its prepuce; coalescence between the urethra and cords drawing to the hymen; ectropium of the mucous membrane of the external urethral orifice. Furthermore, I have observed in obstinate cases of enuresis, that in the cystoscopic view the internal urethral orifice was not limited by the normal, sharp, red margin, but that there were visible red-colored, tongue-shaped proliferations of the urethral epithelium into the trigonum. As a uniting link between this group and the nervous group of enuresis, we have those forms in which pathologic changes of other parts of the body have some relation to enuresis. One notices enuresis in individuals who, by hypertrophy of the conchæ, or by adenoid vegetations in the pharynx, are compelled to breathe through the mouth.

The therapy of all these forms must be directed against the above-mentioned pathologic changes in the way of loosening the clitoris from its prepuce, severing of the hymenal cords, thermo-cauterization of the ectropionated hyperesthetic urethral mucous

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\* Read before the Chicago Medical Society, May 24, 1899.

membrane, or the treatment of remote causes, such as adenoids. If invasion of the urethral epithelium into the bladder causes the enuresis, these invasions are to be removed by the galvano-cautery introduced through the operation cystoscope.

General nervous diseases may also produce enuresis, as chorea minor, where, for instance, the administration of quinin influences the enuresis very favorably. In order to explain those forms of enuresis in which pathologic changes are not to be found the most manifold theories have been propounded. For all these cases I prefer the explanation first given by Mendelssohn. Mendelssohn says that the so-called nervous form of enuresis nocturna is nothing else than an expression of the insufficient function of the sphincter, normal in its anatomic structure, but not yet properly developed physiologically, or where the function of the sphincter was impaired in the course of its normal development by some intercurrent morbid condition. When awake the children are able, if they notice a desire to urinate, to support the involuntary closing apparatus of the bladder by the accessory sphincter muscles. If they are asleep this conscious aid is lost. The impulse for micturition starts reflexly the action of the detrusor, and as the involuntary sphincter is not yet sufficiently strong to resist such reflex contraction of the bladder, a sudden discharge of urine occurs. To this is also added, that children who usually urinate very frequently during the daytime have nearly as many hours of sleep as time for being awake. Other favoring conditions may also increase the tendency to enuresis, such as abnormal irritability of the urinary apparatus from lithemic diathesis, or a uric acid diathesis, and lack of energy of the child's constitution resulting from scrofulosis, rachitis, and anemia.

For therapeutic purposes these different groups of enuresis can be divided into two classes: The one class contains those cases in which the frequent micturition of earliest life becomes permanent. In other words, in such cases a perfect retaining contraction of the sphincter during sleep never developed. The other class is formed by those cases in which enuresis becomes established in advanced childhood after the function of the sphincter had been normal for years. The first class, as a rule, is based on a so-called neurotic disposition, and sometimes disappears at the time of puberty. The second class consists of the cases which are usually based on path-

ologic changes and also outlast puberty if the primary causes are not removed.

In regard to the therapy, it is evident that we must first remove the exciting nervous disposition or disease, and that we must improve the nutrition of the exhausted individuals. The majority of the drugs that have a specific action on enuresis nocturna, as claimed, are nothing else than roborants and tonics, and consequently they often produce a cure. For the purpose of reducing the supposed excessive energy of the detrusor, belladonna, atropin, and similar drugs were recommended. Good results have also been ascribed to these remedies, but as there are cases that are cured in the course of time by the invigoration of the individual by age and so on, I rather ascribe these cures to such changes in the individual than to any virtues of these remedies, as I have personally never seen them to be of any value.

The real question is how to deal with the obstinate cases. The modern treatment is to place the patient in a position of elevated hips, that is, a moderate Trendelenburg position during the night. We assume that in this position the urine accumulating in the bladder does not reach by its level the internal urethral orifice as soon as it does in the ordinary position, consequently as this contact is supposed to produce a stimulating impulse for micturition the act itself is postponed. I do not believe that this theory is correct. I prefer to believe, as Guyon and his school have pointed out, that the impulse for urination is chiefly produced by the distention of the bladder. It is, then, quite indifferent where the surface level of the urine is. On the other hand, it is often very difficult to keep the patients in this Trendelenburg position while they are asleep. They usually cower down in spite of the elevation of the foot end of the bed, so that the whole procedure is frustrated. In spite of numerous attempts I have not been able to produce convincing results by this method. It is also recommended by a large number of authors to reinforce or to strengthen the sphincter by electricity. Two methods are in use for this purpose. In one a rectal electrode is introduced into the rectum, and a plate electrode is applied over the sacrum. In the other method one electrode lies in the urethra and is connected with the negative pole, while the other pole is placed on the symphysis. The faradic current is used in the first method. I could not achieve any spec-

ial benefit from the first method, while the second method I think is based more on theory than on practical experience, since not one of the patients on whom I tried this procedure of galvanization of the urethra was able to endure it for any length of time, notwithstanding that a minimum of current was used. But pseudo-cures produced by this method I have seen quite frequently. The patients do not urinate in bed for some time, but after a fortnight or so the enuresis nocturna would return. The explanation in these cases is, that the urethral mucous membrane was injured, even cauterized by the galvanic treatment. This I have seen by endoscope. I explain these pseudo-cures by the similar occurrence in male patients suffering from enuresis nocturna who acquire an acute gonorrhea. In such cases we frequently observe a discontinuance of the enuresis during the acute stage on account of the excessive sensibility to urination awakening the patient.

The only method that gives regular and permanent satisfactory results is the elastic dilatation of the urethra, first suggested by Saenger. I perform this treatment in this way: A short, straight urethral sound is introduced into the urethra, so that the end of the sound touches the trigonum; then the sound is pressed in different directions, so as to dilate the urethra downward to the left and to the right. It is of importance that each dilatation be made very thoroughly, and even forcibly, but each act of distention should be made only for a few seconds. On account of the deep introduction of the sound the posterior urethra is also influenced by the interrupted dilatations. This treatment is at first made daily; later on, every second and third day. It may be likened to a resistance gymnastic exercise for the sphincter muscle by which this muscle is rapidly strengthened. A beneficial effect is noticed after a few sittings. This treatment must, of course, be combined with such other measures as the individual case may require. The patient is not to drink for several hours before retiring, and the bladder is to be emptied just before going to bed. A uric acid diathesis indicates the use of lithium preparations; habitual constipation and parasites in the rectum may produce congestion in the pelvis and favor enuresis, and hence such causes must be removed. Masturbation, so often accused as a cause for enuresis, is, in most cases, a consequence rather than a cause of the same conditions that produce the enuresis, such as prolapsus of the urethra, parasites, etc.

92 State Street.

## A CLINICAL STUDY OF CHOREA.\*

BY EDWIN WILLIAMS, M.D.

MEMPHIS.

Ex-House Surgeon General, Memorial Hospital, N. Y. City; Assistant Demonstrator of Anatomy, Memphis Hospital Medical College.

Chorea, or St. Vitus' dance, is a functional nervous disorder, chiefly affecting children, characterized by irregular, involuntary contraction of the muscles, a variable amount of psychical disturbance, and a remarkable liability to acute endocarditis. It occurs usually between the ages of seven and fourteen, and children in all grades of society are susceptible to it, although it is more common among the lower classes. Chorea is rare among the negroes, though cases are occasionally seen, and it is extremely rare among the red Indians.

As a general thing, there are more cases of chorea developed during the winter than at other seasons of the year. This seems to depend upon the lowness of the mean relative humidity and barometric pressure during the winter season.

About twenty-one per cent. of all choreic cases give a rheumatic history, either in their parents, or themselves prior to the disease.

Chorea follows an attack of scarlet fever in children in about twenty-five per cent. of all cases.

Chorea may occur during pregnancy—most often during the first five months of the first confinement. It is usually severe, and maniacal symptoms may develop. As a general thing in these cases the production of an abortion will effect a cure.

Forcing children at school is a most important factor in producing the disease, especially in those children who are bright, active-minded and anxious to take a high stand.

Ocular defects lie at the bottom of some cases of chorea, as I have had occasion to observe.

A good many writers have claimed recently that chorea is one of the manifestations of the so-called stigmata of degeneracy; and bright, neurotic children, suffering from this disease, often give a history of pavor nocturnus, enuresis, infantile convulsions, febrile

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\*This paper was awarded the Memphis Lancet prize of \$25 for the best paper presented to the Memphis Medical Society between October, 1898, and June, 1899.



delirium, impressionability and mental precocity. It is not rare to find that the mother of a choreic child has had the disease.

As regards the pathology of this disease little can be said. There are no constant lesions found in the nervous system. Embolism of the smaller cerebral vessels is often found, as might be expected in a disease in which endocarditis is so frequently associated.

The most generally accepted view of the causation of this disease is, that it is a functional brain disorder affecting the nerve centers controlling the motor apparatus, an instability of the nerve cells brought about by anemia, hyperemia, by psychical influences, or by centric or peripheric irritation. The predominance of this disease in females, and its onset at a time when the education of the brain is rapidly developing, are facts which favor the view that chorea is an expression of the functional instability of the nerve centers. Very lately some observers have endeavored to prove that chorea is microbic in origin, but so far nothing has been advanced to support this theory.

The symptoms may be divided into three classes, the mild, the severe, and the maniacal forms. In the mild cases the muscles, speech and general health are not seriously affected. In the severe cases the movements become general, and the patient may be unable to perform any of the ordinary duties of life, owing to the constant, irregular, clonic contractions of the various muscle groups. The child may not be able to articulate. Often with the onset of the severer symptoms there is a loss of power on one side or in the limb most affected. In the third form, the so-called maniacal chorea, the symptoms are all exceedingly aggravated with high fever, and death or insanity may supervene. One attack of this disease appears to bring about another. Few children have but one attack. One of the prominent symptoms is a condition of extreme muscular weakness. Chorea, while it attacks many muscles, fortunately never interferes with the muscles of the heart, bronchi, intestines or the sphincters of the rectum and bladder.

Girls are affected twice as often as boys, and the disease rarely occurs, in either sex, before the fourth year or after the twentieth year.

The prognosis of the disease is good, death being a rare occurrence.

The onset of the disease is insidious in its character. Children are at first peevish, sleep disturbed, inattentive, and on being reprimanded there is undue depression or unusual emotion. These symptoms last for days or weeks, usually, before the motor choreic features appear.

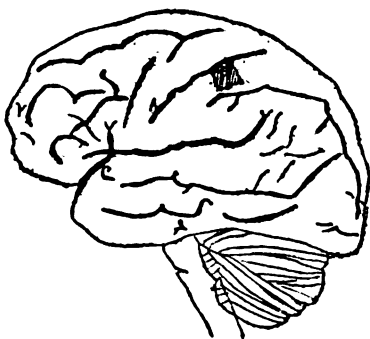
The following four cases will show some of the different causes producing the disease :

Case I. Boy, *æt.* 11, only child. History of rickets in early childhood, poor physique, slight anemic murmur at base of heart. Blood examination showed 3,600,000 red blood corpuscles to the cubic millimeter and the leukocytes diminished in amount. Began to have fits of depression about six weeks before I saw him, and a week before being brought to my notice had marked choreic movements. When I first observed him the movements were very noticeable. There were constant, irregular, clonic spasms, especially involving the muscles of the right arm and shoulder. Speech was but little affected. The gait was slightly staggering, and he showed a marked disposition to walk toward the right side. So marked was this disability that starting from the center of the side of a room about 30 feet square he brought up at the corner of the opposite and right sides of it. His mother had noticed this disability, and was in constant fear that the child would be run over. His eyes were carefully examined, and a pronounced refractive error was found. Suitable glasses were given him to wear, and he was given an iron tonic (Gude's pepto-mangan). Within three weeks the blood count showed an increase to 3,800,000 red corpuscles to the cubic millimeter, and the choreic symptoms had subsided entirely. The eyes, which before had hurt him on reading much, were now in excellent condition, and with his glasses he was able to read whenever and as much as he pleased without injury. This case was followed until the family moved out of town, eight months later. During this time there was no recurrence of the symptoms. The iron tonic was continued for four months, and the blood count at the end of that time was still 3,800,000 red cells to the cubic millimeter. The anemic murmur, however, still persisted.

Case II. Girl, *æt.* 7, mother epileptic before marriage, father a heavy drinker. This child was the youngest of three; other two died, one of cholera infantum at 2 years, one of broncho-pneumonia at 6. Her home life was very degrading. Child rapidly acquiring an appetite for beer and other alcoholic stimulants. Three weeks before I saw her she came very near being run over by a loaded beer wagon; was running across the street, slipped and fell in front of the wagon. A bystander dragged her out of harm's way almost under the hoofs of the horses. The child had a very severe fright, but soon recovered. Five days before she came to see me she developed choreic movements; symptoms first noticed at the breakfast table; spilled a cup of coffee and almost immediately afterward a glass of water. Was sent from the table and afterward whipped, as her mother expressed it, for her carelessness. When I first saw her she had severe clonic spasms, involving both arms and left leg, and a peculiar movement of the face and neck, which consisted of throwing the head to left side and raising both eyebrows. Speech and deglutition were both very much interfered with. In fact, the child did not attempt to talk. The case was diagnosed as chorea of the second degree. No ocular or heart symptoms were found. Child was put upon Fowler's solution, *m. vj t. i. d.*, and after fourth day I increased the dose by *m. j* per

day until she was taking m. xvij each day. This dosage was continued for ten days. After the tenth day the dose was again increased by m. j each day until the child was taking m. xx t. i. d. She kept this up for ten weeks, at the expiration of which her symptoms had about disappeared. During this time her mother ran away with another man, and her father was taken to a hospital, suffering from cirrhosis of the liver. She was given in charge of some charitable women, who put her in a children's home. She continued at the home to take Fowler's solution at irregular intervals and in irregular doses for about six months, and then ceased. When I last saw her, some seven months after her entrance into the home, the only choreic feature to be observed was a slight twitching of the left eyelid. During the time she was taking the arsenic no symptoms of poisoning appeared.

Case III. Girl, æt. 9, only child and very well grown for her age. Bad family history; mother died in an insane asylum of supposed puerperal mania, father died of Bright's disease. Patient is now living with a cousin, who beats her at times. Has always been an excitable child, with an uncontrollable temper. At the age of 8, while skipping rope, fell and struck her head against the stone curbing of the sidewalk. The child was taken to her home and a doctor summoned. She was unconscious for four hours. The doctor diagnosed fracture of the skull and advised removal to the hospital. The cousin refused. The little girl recovered from the fall, but six months later developed true epilepsy of the type known as *petit mal*. She was treated for this medicinally, with indifferent success. The convulsions came about every four days and lasted about five minutes. A month before she was brought to me she began to have fits of depression and gradually beginning incoördinated movements of the left arm. During this month she had nine attacks of epilepsy. When I first saw her the incoördinated movements were noticeable, yet not severe, and were confined exclusively to the left arm and hand. It was decided, on reviewing the case, to operate. Permission being obtained, the skull was trephined at the site of the cicatrix and a depressed fracture of the inner table found, with a spicula of bone about an inch square pressing down upon the ascending parietal lobe, between the fissure of Rolando and the post central fissure on the right hemisphere,  $1\frac{1}{2}$  inches below the great longitudinal fissure. The following diagram will aid in showing the position of the bone.



A—Fissure of Rolando. B—Position of depressed bone in case III.  
C—Fissure of Sylvius.

Upon removing this bone the brain tissue and dura were both found congested. The patient made an uninterrupted recovery, and from that day to the last time I saw her, a period of about eight months, never had another symptom, either of chorea or of epilepsy.

Case IV. Boy, *æt.* 5, good family history, parents in excellent health; younger of two children. The other child, a girl 9 years of age, is normal in every respect. No history of fright or traumatism; heart action normal; no rheumatic history in child or immediate family. Began two weeks before I saw him to have a few choreic movements in the right hand, and when I observed him first the movements involved the right hand, arm, shoulder and right side of head and neck. The movements were not severe. There was no interference with speech or general health. The boy was a "mouth-breather," and had been so for a year or more. His face was heavy, and he had the dull, stupid look so pathognomonic of this disease. An examination of the throat showed large adenoid growths in the posterior nares. The child was put under the influence of chloroform and the growths excised. A rather alarming hemorrhage followed, but was quickly stopped by the local application of the perchloride of iron. The child recovered nicely from the operation, and the choreic movements became less and less, until four weeks after the operation they ceased. The case was kept under observation for about five months, with no recurrence of the symptoms.

The cause of the chorea in Case I was evidently eye strain, as the diminution and subsequent increase in the blood elements was hardly great enough to account for the chorea and its ceasing. Some writers, more especially Osler, claim that eye strain plays but a small part, if any, as a causative factor in this disease. This case, at least, distinctly proves the contrary. In Case II fright is evidently the cause. No other can be assigned. Some authorities claim that fright or sudden emotion rarely produces chorea. In this case the fright was no doubt aided by the child's manner of living, her semi-starvation and her indulgence in alcoholic stimulants. As I remember her first, she was a puny, pale and feeble child, sadly unkempt as to hair and clothes. This case shows a remarkable toleration to large quantities of arsenic without symptoms of poisoning. It also shows the ability of this drug, in the form of Fowler's solution, to combat this disease as no other drug can do.

Case III presents a rather remarkable combination of two nervous disorders, both cured by one operation. I have taken pains to search through a good deal of medical literature and have so far failed to find a record of this combination existing in the same individual. The epilepsy was caused by the traumatic injury, but was the chorea caused by the epilepsy, or the preëxisting fracture? I believe the attacks of epilepsy lowered the resisting power of

the brain tissue in the centers controlling the arm and hand (which was the spot in the brain upon which the fragment of bone rested), and that these incoördinate movements were but an expression of the functional inability of these centers and an inarticulate cry for help.

Case IV is plainly a chorea caused by reflex irritation. This case was first thought to be one of habit spasm, but the absence of the inspiratory "sniff" and the fact that the arm and hand were involved in the choreic movements proved it to be a case of genuine chorea. As soon as the causes of the trouble were removed, the adenoids, the chorea gradually ceased until it died out altogether.

In closing this paper I desire to lay particular stress upon a most important point in the treatment of this disease. Study each case carefully. Find out by careful and repeated examinations, if necessary, what is the prime cause of each individual case. When that is found, treat it first. It may have been a severe fright, or it maybe eye strain, adenoids, adherent prepuce, worms, or many other things which act as irritants to the nervous system. Do not put each patient upon a routine treatment until you are sure in your mind as to the exact etiological factor. The cause found and removed, the after treatment is simple. Rest in bed, sleep, attention to the appetite and the state of the bowels, are of the first importance in the treatment. Drugs, with the exception of Fowler's solution given as in Case II, are of secondary importance. Try to teach parents that as soon as a child complains of muscular weakness without apparent cause, and is subject to fits of depression, it is their duty to give it rest and sleep even at the expense of removal from school for the time being.

Odd Fellows Building.

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THE CANCER PARASITE.—Dr. Curtis, of Lille (*La Presse Medicale*, 1899, no. 20), reports totally negative results in his search for a cancer parasite. He used carcinomata of the breast and testicle. In a carefully conducted series of experiments with eighteen of such cases, he was unable to obtain any parasites that would grow on any media, and was unable to produce any contagion in other animals. The author believes that the positive results obtained by other observers are due to defective technique.—*Medical Record*.

## ATYPIC MALARIA IN CHILDREN, WITH A CASE IN POINT.\*

BY ROSA ENGELMANN, B.A., M.D.

CHICAGO.

Professor of Pediatrics, Post-Graduate Medical School; Instructor Pediatrics, College of Physicians and Surgeons (University of Illinois); Medical Inspector, Chicago Health Department, etc.

It is well known that malaria in children under six years of age runs such an irregular course as to render a correct diagnosis difficult. Reference to a case that misled me, as it did many of our most prominent diagnosticians, confirms this feature.

I had seen the child six months previous to my second visit for hip joint pain and lameness. Incipient tuberculosis was excluded by Dr. John Ridlon. I finally concluded that the trouble was hysterical. I have since learned of reported malarial joint swellings and pain simulating hysteria. The little girl was now suffering from progressive emaciation, anorexia, insomnia, and excessive polydipsia and polyuria. Many and repeated examinations of the urine failed to show the presence of sugar—traces of which, I believe, however, were finally found. Drs. Frank Billings, Edwards, Kuh and Quine also saw the patient—the latter recommending a blood examination. Dr. Klebs and others demonstrated the malarial plasmodium. The exhibition of intermittent small doses of quinin in six weeks reduced the amount of urine from thirty to three pints a day. Albuminuria and glycosuria are recognized complications of malaria. Jaccoud and Vallin assert that the temporary diabetes of malaria may become permanent.

The following incomplete history offers some interesting data. The persistent cough (resistent to all ordinary treatment), and pulmonary infiltration, not of tubercular origin, with low temperature, puzzled and misled me.

Margaret W., 6 years old, living in a sunshiny, well-heated flat in a healthy neighborhood, and had no previous illness except diphtheria. She was about to be operated upon for cleft palate when she was brought to me October 16 for slight cough, anorexia, anemia, restlessness, sleeplessness, pain in the left side, and slight rise of temperature. October 26, no improvement noted; lungs examined; small area of dullness, bronchial breathing, and crepitant rales confined to a small space in the left axillary region, were noted; temperature not much above 99° F.; pulse was correspondingly slow, and respiration not accelerated. October 31, condition the same. Thinking that I might have overlooked a typhoid infection (with secondary pulmonary involvement), I now made a more careful abdominal investigation. All signs and symptoms were negative

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\* Read before the Illinois State Medical Society, at Cairo, May 16, 1899.

except a spleen palpable two fingers' breadth below the costal arch. The Diazo urinary reaction was demonstrated, but Widal's test proved negative. Malaria finally suggested itself, and I made a blood examination and submitted it for confirmation to Dr. Robert Zeit. The plasmodium malaria was shown in the first specimen, but after the institution of the quinin treatment it disappeared, as did the primary leukocytosis that must have been an initial phagocytosis, notwithstanding Cabot's dictum to the contrary. Osler says "the leukocytes are almost invariably diminished in man in malarial fever," and again, "leukocytosis is rare." The child was put upon iron and arsenic, and quinin inunctions proving a failure, the latter in solution was finally given up to thirty grains a day. All unpleasant drug effects were wanting, and I was obliged to treat the case thus heroically and empirically, because at no time was I able to determine the cycle of the disease, either by the closest observation of the symptoms, or by the temperature record. She never sweated or was chilly; neither was there any intermission of temperature; it fluctuated after the exhibition of quinin for six weeks from 99° to 100°, and never rose above this. She rapidly gained flesh, strength and color, and the splenic tumor vanished. She took diminishing doses of quinin until December 16. After two months' treatment I pronounced her absolutely well. Up to date there has been no recurrence.

This case calls attention to the following points:

1. Unknown mode of infection.
2. Irregular and masked course of the disease.
3. Undetermined type of protozoon.
4. Evanescent leukocytosis.
5. Limited area of pulmonic consolidation, associated with peculiarly low temperature curve, pulse and respiratory ratio.

The season of the year (October) excluded a mosquito contagion. These insects are probably the temporary, rather than the permanent, host of the hematozoon. Von Limbeck believes that the life history of this parasite external to the human body is in the ground, drinking water or air. Norton contends that at present we have no proof that this organism lives in water. If water borne, other neighborhood cases should have occurred. Dr. Harley observed cases of malaria in his own family traced to the water of an artesian well, with recovery in every instance after sterilization of the drinking water. If earth borne, the same reason would obtain. Moreover, neighborhood and environment were good — free from moisture, decaying vegetables, and from tearing up the soil.

Flugge advocates an air infection. This theory has not been experimentally established, although Buchner reports malaria communicated by a bed-fellow. Gerhardt says that it can be inoculated from man to man. Schelling reports his own, an assistant's and nurse's infection from a patient attended by him. A lately

returned Cuban soldier, who lay sick with supposed typhoid fever in the flat beneath, may have been the unknown carrier of the malarial protozoon to my patient.

Holt says "the clinical forms of malarial fever in children from six to ten years old do not differ materially from the same disease in adults." The age of my patient, six years upon the border line, thus accounts for the atypic disease process. From the small size, lack of pigment, except in a few intracorpuseular bodies (and but one examination showed the organism), we concluded that the quotidian variety obtained. According to Billings, a post-febrile leukocytosis in malaria is a phagocytosis.

The form of pulmonary involvement was very perplexing. Since the malarial paroxysms were not severe, localized pulmonary congestion, such as accompanies violent attacks in adults, was excluded. The limitation of the physical signs to a small area of consolidation and unimportant symptomatology lead to the thought of a possible parasitic pulmonic invasion through sporular inspiration. The onset of the disease pointed unquestionably to respiratory involvement.

Bronchitis is recognized as an occasionally sole symptom of malaria. Müller, of Warburg, mentions cough, bloody expectoration in a great number of fever and ague patients during a severe epidemic in 1894. Other than bronchitic rales, no pathogenic signs were present in his series of cases.

Osler writes: "It was formerly believed that an especial form of pneumonia was caused by the malarial poison. This idea is now exploded by the Italian observers who have proved by bacteriological examination that, as in other forms of pneumonia, the micrococcus lanceolatus is present." Ed. Maragliano recently declared that "the pneumonia or typhoid assumption of character is due to the fact of nervous circulatory disturbances giving the appearance of a localization of the inflammatory process that really does not exist." This hypothesis seems to apply to my case, but numerous questions are not yet settled.

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## CORRESPONDENCE.

ROSEDALE, MISS., June 27, 1899.

*Editors Memphis Lancet:*

At the earnest solicitation of my friend, Dr. H. L. Sutherland, I came down here to rusticate, and am having a delightful time of it. Drs. Sutherland and Harris and their ladies seem never to weary in their endeavors to entertain me. Dr. S.'s pretty niece has contributed more to this than she suspects. There was a swell wedding the first night, and I attended both the ceremony and the reception, although I had no apparel befitting the occasion.

I have been making a diligent but unsuccessful search for "crescents," and understand that Dr. W. A. Evans, of Chicago, had, several years ago, gone through the entire convict farm without finding them. This corroborates my contention that they do not exist in the territory contiguous to Memphis. During the past ten years I have made several thousand spreads and have never yet found them, nor has anyone else working in and about Memphis. It is to be remembered that Dr. Young, of the Marine Service, was surprised at not finding crescents, seeing that he was accustomed to find them in Baltimore and in Florida. I have one of his specimens now. They are found in Galveston, at New York, at Charleston, and elsewhere on the coast. It seems to me that they are hibernating forms, assumed to resist certain hostile influences. The fact that they are admitted to be conjugated forms (zyzygia) supports this view. (See Society Proceedings, page 86.)

Pure intermittents are now very rare in this region. Time was when the attending physician could promise a positive cure on the

first visit. Now it is very rare to find an attack to yield in three days. I found mostly tertian, one quartan, and one presumably estivo-autumnal; it was not in a good stage for differentiation. In most cases there were different stages of development represented—multiple infection. There is rarely a distinct chill, mostly a chilly sensation, followed by fever of almost any degree. The paroxysm is of indefinite length and varying severity. Many residents have merely an evening temperature during most of the summer, with malaise, languidness, diminished appetite, slightly enlarged liver and spleen, etc. Quinin does some good, but not enough to justify the continued use of it. I curtailed one such case by giving a single dose of it at the right time, determined by the microscope. Of course, the groups not affected by this dose will eventually give rise to symptoms; I timed my dose to catch the largest group. Other doses given similarly would get the other groups. The physicians here, after watching my work, fully agree that this is the only solution of the problem, and intend to equip themselves with microscopes. I have thus converted a social visit into a missionary expedition. Had I the means, I would put in the entire summer in the "Delta." Perhaps some enterprising microscope maker would furnish the "sinews of war." Actual demonstration does more good than all the lecturing.

I also saw a case of "slow fever." I demonstrated the absence of plasmodia—a rather unsatisfactory test, but I had no cultures to try the "Widal." I shall bring some of the dried blood home and try it. Fact is, that these cases never die of the attack and are not immunized by it.

One of the town belles was taken down with an attack of what will perhaps always be known as "malarial hematuria," though why malarial and why hematuria, is hard to understand. So many have named this disorder that I cannot refrain from trying my hand at it. I would name it "anti-malarial methemoglobinuria," since this expresses the condition of the urine and the effect of the disease, for there is no more effectual paralyzer of plasmodia than an attack of it. This lady had not been free from fever for months, and her complexion had been her "bete noir" for some time, but now, her physician tells me, it is perfectly clear. Certain it is that she has had neither fever nor plasmodia in her blood since the beginning of the "hematuria." The treatment consisted of calo-

mel in small and repeated doses, sodium phosphate, a few hypodermics of strychnin, atropin and nitroglycerin, *pro re nata*. Recovery was uneventful; there was no second chill. It is significant that she had had a dose of quinin and calomel twelve hours before the chill ushering in the hematuric attack. The clinical history was typical. There was a severe rigor with a temperature of 103° F. in the evening, followed by a scant discharge of "bloody" urine. There was great restlessness, anxiety, nausea, vomiting, sighing respiration, followed by jaundice on the next day. At midnight on the first day, when I first saw her, the pulse was 120 and thready, temperature 99 $\frac{1}{4}$ °, great appearance of shock, which would tempt one to give morphin, but the local physicians are mortally afraid of it where elimination is of such vital importance, and the other stimulants did answer the purpose. When I called in the afternoon of the following day to get a sample of blood, the skin was clearing up, the urine was only a pale pink and passing in fair quantities, the vomiting had stopped during the night, and she had rested well. On the fifth day she was sitting up.

The quinin therapy of hematuria is a thing of the past here. All the physicians recall with horror and would, if they could, blot out of their memory the days when quinin was used in the therapy of hematuria.

I cannot pass this subject without some reference to the question of quinin hemoglobinuria. There seems no longer any doubt that quinin can, under certain circumstances, produce hemoglobinuria. I have seen such cases and know of one at St. Joseph's Hospital that was fairly convalescent when admitted. The visiting physician ordered quinin, and in a few hours there was a rigor, followed by the passage, under great tenesmus, of some very dark, smoky urine and the aggravation of all the symptoms. I think the publication of the enclosed letter from Dr. Humphreys, of Greenwood, would be of interest in this connection. I have seen one other case in a coal-black negro, which I reported in a paper written jointly with Dr. Goltman.

I will try to get home tonight.

WM. KRAUSS.

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*Dr. Wm. Krauss, Memphis :*

GREENWOOD, Miss., April 23, 1899.

Dear Sir—I send you by mail today a sample of urine from a little full blooded negro boy, five years old. In an extensive practice of fourteen years in the Delta this is the first case of hematuria I have seen in the negro race. This is the experience of the other doctors in this section, which makes it particularly interesting.

The child's mother says the little fellow has had chills and fever every week or two since last summer, and has had this symptom of bloody urine whenever he has taken quinin. I directed her yesterday, when she first called me, to stop the quinin; and I put him on calomel, hyposulphite of sodium and a prescription of citrate of iron and Fowler's solution of arsenic. Today the temperature is normal and the urine is clear. The conjunctivæ are intensely yellow. The family live on the south bank of a slough and drink "pump water." The other members of the family have good health.

Now the question in my mind and which interests us here is: Is this case of hematuria due to quinin or to malaria, as cases appear in white people?

Yours truly,

D. S. HUMPHREYS.

[The answer given to the above letter was, that these cases are what is known as malarial hematuria. How much the quinin has to do with their etiology is still a matter of doubt. The fact is, that it "has no place in the therapy of malarial hematuria." It is to be hoped that the benighted individuals who still persist in its use, and especially the teachers (?) of medicine who recommend its use on the absurd ground that, as it is a malarial disease, quinin must be given, will, before their therapy claims more victims, see the error of their ways.]

VAGINAL DOUCHES, ANTE-PARTUM AND POST-PARTUM.—Boston (*N. Y. Medical Journal*, June 10, 1899), after a full discussion of the subject, concludes as follows:

1. A profuse leucorrhea during the latter months of pregnancy is no indication for vaginal douching.
2. The chemical reaction of a discharge has but slight effect upon its antiseptic powers.
3. The vaginal secretions of pregnant women rarely, if ever, contain pathogenic germs except gonococci.
4. Vaginal douches favor the development of cervical gonorrhea and puerperal sepsis.
5. The vaginal secretions may contain streptococci, staphylococci, diplococci and bacilli, all of which may be non-pathogenic.
6. A discharge from the cervix may show the presence of pathogenic bacteria after all other symptoms of sepsis have disappeared.

# THE MEMPHIS LANCET.

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## EDITORIALS.

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### IS EPIDEMIC CEREBRO-SPINAL MENINGITIS A COMMUNICABLE DISEASE?

We believe it is. Not in the same sense as measles, scarlet fever and diphtheria, but mildly communicable nevertheless. We make this assertion with considerable reluctance, since we are familiar with the teachings of the time and the opinions generally held by those most competent to render such opinions. And the only excuse for putting forward our opinion—for that is all it is—is the fact that should the disease prove to be communicable, isolation, fumigation and disinfection are the prophylactic measures to be considered above all things, for we well know how little treatment can accomplish in these cases.

It is a fact, however, that cases will linger for months, suffer the most terrible torture, be worn to a mere shadow, and finally get well, in spite of the best or the worst treatment.

But have we any evidence of the contagiousness of the disease?

Hirsch, who has studied this disease as no one else has studied it, said as far back as 1886 that evidence as to the contagiousness of cerebro-spinal meningitis is increasing, and he cites numerous examples in proof of his contention. And more recently Councilman, Mallory and Wright, in a report to the State Board of Health of Massachusetts, which is a marvel of completeness of detail and painstaking research, after citing many authorities, pro and con, conclude

thus: "It is certain that the disease is an infectious disease, and is produced by a definite microörganism. This organism increases in the body of the affected individual, and in a certain number of cases may infect his surroundings, and may in a manner, which we do not know, be conveyed to the tissues of a susceptible individual and there produce the disease. Why this takes place in some cases and not in others, and the conditions under which it takes place, we do not know. The evidence on the whole is not conclusive that the disease is incapable of being transmitted from one individual to another. In the present epidemic (referring to the epidemic in Boston in 1896-97) there were but few cases in which individuals in the same house were affected. In one case a mother was attacked two days after the death of her child from the fulminating form. In two other cases there were cases in the same family, and in one case it was said that children in the same neighborhood had died of brain fever." These statements, although made by such eminent authorities, are not conclusive enough to convince the most skeptical, but that they lean toward the contagious side of the question there is no doubt. And now, when we admit that the evidence against contagion is far greater than the evidence for it, we cannot be accused of any prejudice pro or con. We are only stimulated by the desire of protecting the public against one of the most terrible diseases that affect mankind—a disease which will very often cut down our nearest and dearest in a few hours—yes, cut them down before we have even time to realize what has happened. In the city of Memphis we are enabled to report, owing to the kindness of the efficient secretary of the board of health, Dr. Haase, about eighty deaths from October, 1898, to May, 1899, and among these are several instances in favor of the contagiousness of the disease.

It can be argued, and with considerable truth, too, that what looks to us and to many others as evidence of contagion are merely coincidences that happen in the history of every disease, to say nothing of things in general, and of every day life in particular. We have candidly made admissions which throw great doubt on our contention; at the same time even the most biased will admit that the question is not by any means a settled one, that there is a doubt, a just doubt, a doubt garnered from the evidence and observations of some of the most eminent men. And since such a doubt unmistakably exists, let the public have the benefit of it; and if time

should prove that we are in error, and that the disease is not contagious, the board of health will have the satisfaction of knowing that they had taken time by the forelock in having sought by isolation, fumigation, disinfection, etc., to prevent the spread of a most terrible disease, and at least to have erred on the right side. M. G.

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#### THE MEMPHIS MEDICAL SOCIETY PRIZE.

The Memphis Medical Society, at its July meeting, passed a resolution offering a prize of twenty-five dollars for the best paper read before the society between October 1, 1899, and June 1, 1900. No restriction is placed on the number of papers each member may present, nor is he limited in his choice of a medium or time for publication. The impromptu portions of the society's meetings have been of a high character, but the set papers have not been so creditable, and it is to be hoped that this offer will stimulate the members to present carefully prepared essays. The offer is not valid unless ten papers shall be entered in the competition.

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### REPORTS OF SOCIETIES.

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#### PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

*Regular Meeting, July 11, 1899.*

The President, Dr. B. F. Turner, in the chair.

Present were Drs. Turner, Holder, McKinney, Williams, Raymond, Alfred Moore, Stanley, Crofford, Pincus, Griswold, Oliver, Reilly, Heber Jones, Krauss, Henning, Barton, Smythe, Kane, F. A. Jones, Goltman, Black, Ellett, Rudisill, Sale and Hall.

*Dr. Wm. Krauss* reported a case of estivo-autumnal fever seen in his service at St. Joseph's Hospital in which he found crescents. The case being so unusual—he never having found them before—he questioned the patient as to his previous whereabouts and found that he had been working in a lumber camp about two hundred miles south of Memphis. Hence Dr. Krauss still maintains that these bodies are not found within one hundred miles of Memphis.

*Dr. J. H. Reilly* stated that he had always differed with Dr. Krauss on theoretical grounds and had been anxious to prove him

in the wrong, but, in a three months' service at the City Hospital he had seen a large clinic of malaria and had made blood examinations in each case without finding them.

*Dr. F. S. Raymond* reported *A Case of Death Following Curettage for Incomplete Abortion*.

*Dr. T. J. Crofford* thought death followed too soon after the operation for peritonitis to have had time to develop, and suggested that infection took place at the time of the curettage and death followed from sapremia.

*Dr. M. Goltman* reported *A Case of Rupture of the Urethra from Sexual Intercourse*. The patient had been married three months before her husband succeeded in having intercourse with her—the act then being accompanied by considerable pain, and followed by the passage of bloody urine. Examination revealed an intact hymen, a much distended urethra, and two lacerations on its wall; they were not deep, and the condition was by no means serious.

*Dr. B. G. Henning* made *A Report of Cases*. In a series of cases of intermittent malaria in hospital and private practice, he has found that single large doses of quinin given during or following a chill so saturate the blood with quinin that subsequent crops of plasmodia are killed when they develop, and no further chills occur. He gives forty grains by the mouth, or thirty grains hypodermatically.

*Dr. Henning* then related the case of a young man who first came to him with a pain in the right shoulder and side, and a temperature of 102°. He thought it was due to some disturbance in the liver, and as the swelling increased and the temperature rose, it was thought to be an abscess. There then developed retention of urine, and a membranous plug was found at the meatus; on removing this it proved to be a cast of the pelvis of the kidney. (The specimen was exhibited.) Its removal was followed by the discharge of a smaller cast (ureter), and then a gallon of urine, and then blood. The swelling (hydronephrosis) and temperature disappeared, and after twenty-four hours of bloody discharge (suggesting calcareous pyelitis) the urine was found full of pus. This continued, without bad general symptoms, for five days—the quantity of urine being much reduced. The patient then had a chill and began to expectorate pus. Physical examination and repeated exploring with a needle failed to show any disease of the lung or pleura. The patient went to Louisville, where a diagnosis of abscess



of the liver was made and an operation performed. The liver was found healthy, the kidney destroyed by an abscess. The patient died. The abscess apparently discharged through the lung.

Dr. Henning also presented a cast of the bronchi expectorated by an elderly patient, the subject of chronic bronchitis. This was the second such cast this patient had coughed up, and its ejection was followed by hemorrhage and death. The trouble was thought to be tubercular.

*Dr. Krauss* said that quinin was simply a plasmodicide, and did no good in the apyretic period of malaria. Dr. Henning's plan of giving it has been proven to be the correct one by microscopical observation, and is not new. He thinks the pus in the first case took a very circuitous route, but he has seen, post-mortem, a case in which an abscess from a necrosed rib discharged into the ascending colon.

*Dr. Goltman* said that Dr. Henning's method of giving quinin had been accepted as correct some time ago on microscopic findings, and he finds that five grains hypodermatically at the proper time is quite sufficient.

*Dr. Heber Jones* gives quinin (20-30 grains in all) right away when called to a case of intermittent malaria, regardless of the temperature. He did not understand just where the urine collected in Dr. Henning's patient with abscess of the kidney.

*Dr. Reilly*, in his hospital work, gives calomel and then five grains of quinin every two hours for twelve hours in intermittent malaria. None of his patients had a second chill.

*Dr. A. B. Oliver* often gives sixty grains, and finds that twenty-grain doses excite the patient less than small ones do.

*Dr. Alfred Moore* has recently used paregoric and soda instead of quinin in one case of malaria, and no subsequent chill occurred. In regard to Dr. Henning's last case, death from the second hemorrhage is rare, but he has seen it follow the first one.

*Dr. Henning* said that so far as the circuitous route of the pus was concerned he had seen an anal fistula open on the face. He has found ten grains of quinin at the time of the chill inefficient, and hence uses larger doses. The method he mentions is of value in that it saves so much time. In the case of hydronephrosis the urine was in the pelvis of the kidney and ureter.

*Dr. F. D. Smythe* reported the following cases:

Case I. A young woman had for ten days secreted about two drams of purulent urine a day, which was drawn with a catheter. On the tenth day she had a free bleeding from the genitals, resulting from a slough of the cervix, exposing and involving the uterine artery. This was clamped, and as the patient was almost exsanguinated, half a gallon of deci-normal salt solution was put in the median basilic vein. This had the effect of increasing the quantity of urine somewhat, but in two days it was again reduced, a profuse hemorrhage from the stomach occurred, and the patient died.

Case II. A typical case of typhoid fever in a young man, with high temperature and a very profuse eruption, presented on about the seventeenth day a temperature of  $105\frac{3}{4}^{\circ}$ . It then dropped to normal and did not again rise. This he regards as typhoid fever terminating by crisis.

*Dr. F. A. Jones* said this is what Hare terms abortive typhoid. Pseudo-crises occur, after which the fever returns and runs the usual course. Typhoid fever is now milder and less common than formerly.

*Dr. Henning* saw this patient and has seen the same thing occur in others. He regards pseudo-crises as instances of reinfection.

*Dr. E. P. Sale* said these cases are described, and he has seen a few, notably one with a temperature of  $109^{\circ}$  on the twenty-eighth day, followed by a drop to  $96^{\circ}$  and recovery.

*Dr. Reilly* thinks our cases are mixed (malaria and typhoid), and this tends to make them mild. Reports from Philadelphia and other cities do not show that typhoid fever is lessening.

*Dr. Crofford* asked, if reinfection occurs, how does a typhoid patient ever recover?

*Dr. Henning* said that the poison was rendered more potent by some imprudence of the patient.

*Dr. Heber Jones* does not think typhoid is changing its character, but from a careful study of the blood of many cases, thinks many continued forms of malaria are diagnosed typhoid. The blood examinations show few mixed cases. He saw one very marked one, where the Widal reaction and all the clinical symptoms of typhoid were present, and the patient had marked malarial paroxysms, and the plasmodium was found in the blood on several occasions. The patient died.

*Dr. Krauss* thinks we can tell these cases with certainty by the temperature chart.

*Dr. Goltman* asked if *Dr. Smythe's* first patient was a hemophilic.

*Dr. Smythe* replied that she was not.

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## PROGRESS OF MEDICINE.

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ETIOLOGY OF ABSCESS OF THE LIVER.—*Jackson (St. Paul Medical Journal)* reports seventeen cases observed by him, which etiologically classify as follows: Accidental, two; indefinite, three; amebic dysentery, two; appendicitis, ten. In the cases classified as accidental, one was due to an extension to the liver of an empyema, and the other was the result of a circumscribed peritonitis, secondary to the rupture of an ulcer of the stomach. In the cases classified as indefinite, no causative factor was suggested by the history or course of the case, and in one of the three a post-mortem examination did not clear up the obscurity of the case. In two cases the abscess was secondary to amebic dysentery. Aside, however, from the two rare cases of amebic abscess, the chief interest centers in the ten cases in which the process arose in an acute or chronic appendicitis. A complete clinical history of each case, with post-mortem record of the fatal cases, is given in this valuable paper, which is in the direction of much needed research. Some of the characteristics summarized upon are:

1. The pulse, which is usually extremely slow. This slow pulse is warned against for reliance in the prognosis.

2. Enlargement of the liver was present in every case.

3. The spleen was generally enlarged.

4. Vomiting was a most constant symptom, being absent in only two cases.

5. Pain and tenderness are rarely present, and very insignificant when present at all.

6. Leukocytosis was present in all the cases in which a blood examination was made.

7. Jaundice was present in six cases.

8. Aspiration of liver is an unsatisfactory method of diagnosis.

9. Early and free incision is the only rational treatment.

10. The most important signs in order of their frequency are: tumor, fever, chills, leukocytosis, and a relatively slow pulse. The symptoms of less importance are pain, tenderness, vomiting, jaundice and enlarged spleen.

Lastly, appendicitis cases should be suspected when the liver is enlarged and there are signs of general sepsis.

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RUBBER GLOVES IN ASEPTIC ABDOMINAL SURGERY.—C. H. Richardson (*N. Y. Medical Journal*, June 24, 1899) is a strong advocate of the use of rubber gloves in surgical work. He first prepares the hands as follows:

The finger nails should be cleared of gross dirt before beginning. Use sterilized water, and change it often. With a boiled stiff hand brush and green soap, scrub for a period of five minutes (it is longer by actual time than it seems when hurried) the lower third of arm, forearm and hands—giving special attention to the sides and base of nails, as well as underneath them and between the fingers. A sharp-pointed stick (orange wood is the toughest) assists in this locality. This removes the superficial scales of epithelium harboring the staphylococci. An ounce of oil of turpentine now applied and thoroughly rubbed in forms a creamy emulsion, removing most of the oily sebaceous material always present, and is a mild antiseptic. Another application of brush and soap for two minutes, and then carefully rinse the hands in plenty of fresh, sterilized water. Have some one pour one or two ounces of ninety-five per cent. alcohol over the arms and hands, rubbing them at the same time. This further frees the hands from any fatty material. Submerge in arm basin filled with warm 1 to 1000 bichloride solution the scrubbed area for five minutes; then rinse in normal salt solution to remove the bichloride solution remaining. If rubber gloves are to be worn, dry the hands with a sterilized towel. Have some one remove the pins from the towel in which the gloves are carried; remove the gauze wrapper yourself (it is sterile) and put on the gloves, which by the following plan of sterilization will require no powder shaken inside, and will slip on as readily as a kid glove. It is well to now submerge the gloved hand in a 1 to 1000 sublimate solution for two or three minutes, and rinse in normal salt solution. Touch nothing from this minute but your instruments.

If these procedures are rigidly carried out, a patient will never become infected from the hands, now the greatest source of danger in most well-regulated hospitals—the technique in other respects being first-class.

The gloves are prepared by first washing in soda solution, inside and out, and holding for a minute over a heater or gas flame, reversing once. Dust liberally the inside with dry-heat sterilized soap-stone. Wrap each pair in a double layer of gauze: two pairs of, say, No. 8 for surgeon and assistant, and one pair No. 6 for nurse, laid on a towel and placed in a formic-aldehyd sterilizer for two hours. Wrap in towel already at hand, mark sizes with graphite, and they are ready at any or all times for hospital or out-of-town use. Four or five sets can be prepared at a time, as well as one; they are sterile, dry, already powdered, and can be put on in ten seconds.

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CLINICAL AND SCIENTIFIC CONTRIBUTIONS UPON THE VALUE OF THE WIDAL REACTION—BASED UPON THE STUDY OF TWO HUNDRED AND THIRTY CASES.—Drs. Anders and McFarland (*Philadelphia Medical Journal*, vol. 3, no. 15) have made 1100 tests; nearly all the work was done with a dilution of 1.10. The standard dilution of 1.50 is only called for when the clinical signs do not coincide with the test. The cases of the authors were either typhoid or not typhoid fever. The conditions of the culture should be the following:

1. Age. The individuals of a young culture are rather longer and more actively motile, both of which features are essential to success; cultures less than twenty-four hours old are best.

2. Activity. Agar cultures three or four weeks old are the best to make the plants from; more frequent transplantation will give colonies which might react with normal blood.

3. Virulence. It is important to use only attenuated cultures; different observers are at variance on this point, but Wyatt Johnston is emphatic upon the use of attenuated cultures.

4. Reaction of culture medium. This should be very faintly but distinctly alkaline; acid media may entirely prevent agglutination.

5. Vitality of the culture. This is only necessary to show loss of motion; dead cultures react just as well in other respects. Gruber's theory of reaction was that the serum acted upon the capsules of the bacilli, causing them to swell up and become adhesive.

In conclusion, certain precautions and axioms bearing upon the clinical value of the serum reaction in diagnosis of typhoid fever are summarized :

1. The disease is not to be excluded on account of the absence of a positive Widal reaction, since genuine cases have been met with in which a negative result has been obtained throughout.
2. All cases that react positively are to be regarded as typhoid fever until a thorough bacteriologic examination fails to reveal typhoid bacilli anywhere in the body, as cases occur in which the usual enteric lesions are entirely wanting.
3. Taken singly the sero-reaction is the most trustworthy indication of typhoid fever.
4. Although not an early diagnostic symptom, it nevertheless serves to complete the diagnosis in the great majority of cases at the earliest date possible.
5. Since the sero-reaction may be long delayed and very exceptionally absent throughout, it cannot be solely relied upon for therapeutic purposes.
6. Previous attacks of typhoid fever, within one or two to three years, render the test valueless.
7. In order to secure accurate results, the technique is to be carried forward by a trained bacteriologist.

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**INTUBATION OF LARYNX IN LARYNGEAL DIPHTHERIA OR PSEUDO-MEMBRANOUS CROUP.**—Richmond McKinney (*Memphis Med. Monthly*, July, 1899) says that Bouchut in 1858 conceived the idea of fashioning a tube to fit and remain in the interior of the larynx, and Bouchut's procedure was condemned by the French Academy of Medicine, and intubation accordingly fell into oblivion until 1880, when O'Dwyer began his experiments with this method, and five years later made it public. The indications for intubation in laryngeal diphtheria are one—threatening stenosis of the larynx with the diphtheritic false membrane. If the tube be ejected by coughing, which is often the case, it should be reintroduced until finally it is retained. The author has but exceptionally met with difficulty in deglutition while wearing the tube; but if this be encountered, the suggestion that the child be placed on the back while feeding offers a practical way of overcoming this difficulty. Without intubation or tracheotomy and antitoxin, the mortality from laryngeal

diphtheria has heretofore been from ninety to ninety-five per cent. Halstead finds that the mortality of intubations without serum is seventy-six per cent., and eliminating cases of death within twenty-four hours of injection, a mortality of ten per cent. with serum. Waxham reports twenty-nine consecutive intubations for laryngeal croup, with twenty-seven recoveries, all with antitoxin. It is seen from statistics that under two years of age the percentage of recoveries after intubation is five times as great as after tracheotomy, while only in cases from four and a half to five and a half years of age is the percentage in favor of tracheotomy, and then but a mere fraction. In the author's experience he has found results quite a good deal better from intubation. Intubation can claim over tracheotomy that the consent of the parents is more readily gained, it is freer from shock, there is no danger of wound infection, the danger of broncho-pneumonia developing as a result of the inspiration of impure and insufficiently warm and moistened air is almost nil, and recovery is more rapid. In thirty cases of his own which he intubated for laryngeal diphtheria, there were but four deaths. In all his cases antitoxin was used at once, the diagnosis being confirmed bacteriologically afterward.

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COCAINIZATION OF THE SPINAL CORD.—Bier, of Kiel, in the *Deut. Zeitschr. für Chirurgie* for April (*Med. News*, July 1, 1899), relates his experience with an entirely new application of a local anesthetic to produce general anesthesia. By the bold expedient of throwing small quantities of very dilute cocain solution (0.005–0.01 gram of cocain) directly into the spinal canal, he attacks the nerve roots and ganglia themselves, as well as the non-medullated nerve trunks before their emergence from the spinal column, and produces satisfactory anesthesia of the whole body beneath the nipple line. Insensibility is complete seven or eight minutes after the injection, which is done after the manner of Quincke's lumbar puncture, made painless by a preliminary Schleich's infiltration, and continues for about three quarters of an hour. Strange to say, heat and cold perception and also the touch and pressure senses are preserved, but all impressions of pain are entirely obliterated. Because of this, and inasmuch as it seems incredible that the entire thickness of the large nerve trunks should be permeable by the solution in so short a time, the inference is drawn that the pain-

conducting fibers are placed at the periphery of the nerve bundle.

Bier performed in this way such severe operations as osteoplastic resection of the ischium, knee and ankle joints, necrotomy of the tibia, resection of the femur, etc., to the perfect satisfaction of the patients. By experiment on himself and a colleague, he also proved that the anesthesia was absolute and its production unaccompanied by unpleasant sensations.

Unfortunately for the vogue of the new method, however, the after-effects are quite as undesirable and much more prolonged than those following chloroform or ether, and consist in dizziness, severe headache, nausea and vomiting. As these symptoms do not put in an appearance until a number of hours after the operation, it is assumed that they are due merely to the disturbance of the cerebro-spinal system, and not to any direct toxic effect of the drug, and it seems probable that modification of the solution employed may eliminate these difficulties. While in its present form, suitable only for individual cases where the use of the usual anesthetics is inadmissible, the idea is a very promising one, and opens up a most suggestive field for investigation.

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**CLOSURE OF THE ABDOMINAL INCISION AFTER LAPAROTOMY AND THE TENDENCY TO HERNIA.**—In the course of time, abdominal operators have reached a proficiency in technique and an assurance in the application of the details of asepsis that have made laparotomy a comparatively facile and safe procedure. There has, however, remained an objection not foreseen at first, but ever becoming more insistently prominent as the number of abdominal operations increased. Despite the most anxious care and most solicitous technique, ventral herniæ occur at the site of the abdominal incision and often make life miserable for the patient. The frequency of the occurrence of hernia has become one of the great sources of opprobrium to modern abdominal surgery, and it is not unusual to have patients who do not fear the result of the operation itself hesitate to undergo it because of the fear of the subsequent hernia that they have learned to dread from the experience of friends or acquaintances.

The review of the recent results of post-operational hernia by Dr. John G. Clark, of Johns Hopkins Hospital (*Progressive Medicine*, vol. 2, June, 1899), shows that a number of factors which



have usually been considered as influencing the production of hernia really have no etiological connection with it. For instance, permitting the patients to get up after seventeen or eighteen days does not predispose to hernia, and keeping them in bed for longer periods does not prove a prophylactic against its occurrence. The wearing or failure to wear a bandage after operation does not affect the liability to hernia, either favorably or unfavorably. Pregnancy following immediately or remotely after operation plays no part in the production of hernia, despite preconceived notions to the contrary.

It is evident, then, that the occurrence of ventral hernia after operation is mainly due to the method of closing the abdominal wound, despite all that has been said by certain gynecologists abroad as to the advantage to be derived in this matter from making the incision through the rectus muscle. Dr. Clark, from his experience at Johns Hopkins, as well as his records of the subject, decides in favor of the incision in the linea alba. Two things are necessary to lessen the tendency to hernia in closing the incision: First, the fascia—i. e., the aponeurosis of the recti muscles—must be carefully brought together so as to secure complete and firm continuous union along the line of section. The essential point in placing the sutures is to catch enough of the aponeurosis to firmly bring the borders of the fascia not only into complete coaptation, but also to slightly elevate them into a median ridge. The coaptation of the fascia must be especially exact at the lower end of the incision, when the liability to hernia is greater, because the layers of fascia are fewer.

The second requisite for a firm cicatrix is to secure healing *per primam*, and this is best secured by leaving no dead spaces in which blood or lymph may collect to become infected and by allowing no penetrating cutaneous stitches through which microorganisms may penetrate from the surface, despite the most careful precautions.

On the whole, this subject of the avoidance of hernia by a careful technique in the closure of the abdominal incision would seem to have reached a development that leaves very little to be desired, and it is evident that it is only in patients with especially relaxed tissues or with natural tendencies to hernia that the operator may feel exempt from responsibility in future cases of this annoying sequela.

**THE TECHNIQUE OF LARYNGECTOMY.**—W. W. Keen (*Annals of Surgery*, July 18, 1899). The incision is made in the median line and the thyroid cartilage split to enable an inspection of the interior. After deciding upon a total laryngectomy, the soft parts are entirely dissected from the larynx till the esophagus is reached posteriorly, all vessels being ligated as cut. The trachea is now divided entirely across below the level of the cricoid, and anesthesia continued through the open end of the trachea, thus dispensing with the performance of a low tracheotomy. With a hook the lower end of the larynx is raised, and by blunt dissection the esophagus separated to the upper level of the larynx. With scissors the attachments to the upper border of the larynx are severed and the larynx removed; the epiglottis is drawn down into the wound. The upper edge of the anterior wall of the pharynx is stitched to the tissues below the hyoid bone, and the cut end of the trachea stitched to the skin margin of the wound and the wound above the tracheal opening closed. The operation is done with the patient in the Trendelenburg posture, and the patient kept thus in bed for twenty-four hours. The bed is placed level on the second day; the patient sits up in bed with a bed-rest on the third day, and is out of bed on the fourth day. Rectal feeding is used for thirty-six hours, and afterward liquids in small quantities, followed by a swallow of water for cleansing, are given by the mouth. A tube under the control of the patient should be introduced, as needed, into the tracheal opening to prevent contraction. The several days preceding operation should be devoted to cleansing the mouth and nose. All carious teeth should be extracted, the toothbrush used frequently, and mouth and nose frequently sprayed with an antiseptic solution.

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**EXCISION OF THE RIGHT SUPERIOR CERVICAL GANGLION OF THE SYMPATHETIC FOR GLAUCOMA.**—J. M. Ball, E. C. Renaud and Willard Bartlett (*N. Y. Medical Journal*, July 1, 1899). The patient, a woman, aged 56 years, was operated upon May 15, 1899. Vision was reduced to light perception; tension, + 3. The incision was four inches in length downward from the mastoid along the posterior border of the sterno-cleido-mastoid. The spinal accessory nerve was cut. After exposing the carotid sheath and opening it to identify the pneumogastric nerve, the nerve, artery and vein were pulled forward, exposing the rectus capitis anticus muscle upon

which the ganglion lies. After tearing through fascia, the ganglion was isolated and cut high up with curved scissors, and about one inch of the sympathetic trunk below the ganglion was removed. Time of operation, fifteen minutes. The immediate effects of the operation were: relief from pain, a reduction of tension to  $+2$ , injection of the conjunctiva, and suffusion of the eye with tears. Later slight ptosis of the right lid was noted. Four days after the operation the tension was  $+1$ .

**A MODIFIED SIEGLE'S PNEUMATIC AURAL SPECULUM.**—Charles H. Burnett (*Jour. A. M. A.*, June 3, 1899) describes a modified Siegle pneumatic speculum, which is practically a Gruber speculum made of metal, to which is fitted the glazed lid that transforms it into the Siegle pneumatic speculum. Its extreme length is 5.5 cm., and its diameter at its meatal end is 6 mm. in vertical by 4 mm. in transverse diameter. This renders it more adaptable to the shape of the meatus. It is nickel-plated both within and without, which gives it a better reflecting surface than possessed by the black-rubber Siegle instrument found in the shops. The two small openings on its inner wall at the point connecting it with the air tube act like a sieve to prevent the drawing up of particles of cerumen or dirt



Burnett's Modified Siegle's Pneumatic Aural Speculum.

into the operator's mouth—another advantage over the ordinary Siegle's instrument. The attachment for the air tube is in the long axis, causing a downward curve of the rubber tubing, and preventing a kinking of this, which sometimes occurs in the old forms of Siegle with the attachment in the transverse axis. The chief advantage, however, lies in the meatal end of the speculum. The outside of this end is made to rapidly widen for a distance of a centimeter from the end to a diameter of 11 mm. vertically and 10 mm.

transversely, thus giving a graduated and fitting hermetically into any adult meatus without the addition of rubber packing or replacing of another speculum with a smaller or larger diameter, as in the usual forms of the hard-rubber Siegle.

[The writer has used this instrument, and finds it vastly superior to the older patterns of Siegle's speculum.]

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INTRAUTERINE VAPORIZATION.—Abram Brothers (*N. Y. Medical Journal*, May 18, 1899) summarizes the present uses of vaporization or vapo-cauterization as follows:

1. *As a hemostatic* it has been employed most successfully in cases of non-malignant post-climacteric uterine hemorrhages. It has proved curative in the various irregular bleedings met with in connection with catarrhal fungoid or hemorrhagic endometritis. It acts as a palliative measure in certain cases of fibroid tumor or inoperable carcinoma associated with hemorrhages.

2. *As a caustic* it can be relied on to destroy the mucous lining of the uterus, even to the extent of obliterating the uterine canal.

3. *As a bactericide* it may be used in cases of gonorrheal and septic puerperal endometritis. Fenomenow has repeatedly had the uterus (which was subjected to vaporization and later removed by hysterectomy) examined bacteriologically and proved it to be sterile.

4. *To reduce the bulk of the subinvolved uterus*, Pincus has frequently resorted to intrauterine vaporization with success.

5. *In Chronic Suppurating Fistulous Tracts*. Fenomenow has reported successful results in cases of abdominal fistulæ of several years' duration, which had resisted all other methods of treatment.

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TREATMENT OF FRACTURES OF THE PATELLA.—Will J. Means, A.M., M.D. (*Columbus Medical Journal*, July 5, 1899), concludes as follows:

1. The results of the non-operative treatment are unsatisfactory, both as to long confinement and functional disability.

2. The methods of maintaining apposition of the fragments by external appliances are unsatisfactory and unscientific.

3. In open arthrotomy the fragments can be carefully approximated and sutured in such manner as will maintain apposition and ultimately bony union.

4. The operative method saves months of confinement, and gives permanent results.

5. The buried suture material should be absorbable, such as catgut or kangaroo tendon.

6. The field of operation should be continuously irrigated with a hot salt solution during the manipulation, and the incision closed without drainage.

7. The massage treatment, begun at an early date, is an important factor in restoring the functional activity of the joint.

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A CASE OF TEMPORAL ABSCESS DRAINED THROUGH THE ATTIC AFTER OSSICULECTOMY AND CURETTMENT.—Stillson (*Laryngoscope*, July, 1899) saw a woman, thirty years old, three months after an attack of acute mastoiditis, which had been only partially relieved. She was anemic, had no appetite, could not sleep, had lassitude, attacks of shivering (convulsions?), vertigo, tinnitus, paresis of the extremities and muscles of the face, occasionally slight delirium and incontinence of urine, fluctuation of temperature from 98° to 104°, with rigors, a fluctuating pulse, hyperemic optic disks, and dilated pupils. There was a small perforation up and back in a congested membrana tympani, slight mastoid redness and tenderness, pain in the affected side of the head, and tenderness above the ear. The last symptom, with slight evidences of mastoid involvement, pointed to extension of the process to the cranial cavity by way of the roof of the middle ear; and this fact, together with the patient's bad general condition, determined the operator to attack the disease, if possible, through the ear. After removing the drum, malleus and incus, a bent probe was passed upward in the attack and a narrow necrosed opening detected. A bent curette was introduced, and caused a free evacuation of pus. The patient rapidly recovered, but had some metastatic abscesses on the legs. The patient regained her health, and at last reports was doing her household work, had no discharge from the ear, and could hear ordinary conversation at eight or ten feet with the affected ear.

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THE TREATMENT OF MALIGNANT TUMORS.—Coley (*Practitioner*, April, 1899) concludes, in regard to the treatment of malignant tumors with the mixed toxins of erysipelas and bacillus prodigiosus, as follows:

1. The mixed toxins of erysipelas and bacillus prodigiosus have

an inhibitory action upon the growth of malignant tumors of whatever variety.

2. This influence is far more marked in sarcoma than in carcinoma, and differs very markedly in the different varieties of sarcoma, being most pronounced in the spindle-celled variety and least in the melanotic.

3. A considerable number of inoperable sarcomata, the correctness of the diagnosis of which is beyond question, have entirely disappeared under this method of treatment.

4. A large portion of these cases have remained free from recurrence more than three years after treatment—a period which has generally been accepted as of sufficient length to justify their being regarded as permanent cures.

5. The action of the toxins upon sarcoma must be regarded as a rapidly progressing necrobiosis with fatty degeneration. This action in no way resembles that of a local escharotic, but is rather specific in character, exerting its destructive influence upon the tumor tissue when injected subcutaneously at a distance, as well as when introduced locally.

6. This method of treatment is attended with some risk, unless certain precautions are taken. These risks are: (a) collapse from too large a dose, especially when injected into a very vascular tumor; (b) pyemia from insufficient care as regards asepsis, especially in the presence of a granulating or sloughing surface. That these risks are slight is shown by the fact that, in upward of two hundred cases of malignant tumor treated personally, death occurred in but two as a result of the treatment.

7. The use of small doses of the toxins for a short time after primary operation as a prophylactic measure theoretically has much to recommend it.

8. The action of the toxins upon sarcoma, as shown by the clinical results, is in strict accordance with the known action of the living streptococcus of erysipelas; hence the method rests upon a perfectly logical and scientific basis.

9. The toxins, to be of value, must be prepared from highly-virulent cultures of the streptococcus of erysipelas.—*The Monthly Cyclopædia of Practical Medicine.*

TREATMENT OF A SUPPOSED "KISSING BUG" WOUND, FOLLOWED BY PROMPT RECOVERY.—Burrall (*Medical Record*, July 15, 1899) saw a man the day after he was bitten or stung on the forearm. The lesion was round and elevated, and covered by four longitudinal vesicles. The wrist and back of the hand were swollen, and flexion and extension of the fingers painful. Tincture of iodine applied once, and sulphide of calcium internally, were followed by prompt relief.

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## BOOK REVIEWS.

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Any medical book can be obtained through the *Lancet* at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

**The Anatomy of the Central Nervous System of Man and of Vertebrates in General.** By Prof. Ludwig Edinger, M.D., Frankfort-on-the-Main. Translated from the Fifth German Edition, by Winfield S. Hall, PH.D., Professor of Physiology in the Northwestern University Medical School, Chicago. Assisted by Philo Leon Holland, M.D., Instructor in Clinical Neurology in the Northwestern University Medical School, Chicago, and Edward P. Carleton, B.S., Demonstrator of Histologic Neurology in the Northwestern University Medical School, Chicago. Illustrated with 258 engravings, 6½x9½ inches. Pages, xi-446. Extra cloth, price \$3. Philadelphia: The F. A. Davis Co.

A remarkably clear and able exposition of the origin and structure of our nervous system, together with the points of resemblance to that of the lower vertebrates. The first part is an explanation of the neuron theory of the general structure of the nervous system; it is scholarly, and, from the evidence adduced, convincing that we are on the right track to a much better understanding of the structure and functions of the various parts of the system. The second part considers the origin of the nervous system from the epiblast and the mode of development of the several centers found in the adult brain and cord. This part is clear, but rather brief, giving more space to comparison with the lower types of vertebrates, and demonstrating, by many admirable plates, just the point at which development ceases in each of the species described. The third part is probably the most interesting to the physician. It is devoted to a study of the mammalian brain, and describes most fully the general structure of the brain and the innate anatomy of the principal centers, together with the course of the nerve fibers leading to and from these centers, with a further consideration of the physiological action of each individually, and the system acting as a whole. The value of the book is much enhanced by elaborate illustrations, and in many places they assist very materially in the explanation of difficult points in the text. The translators are to be congratulated upon presenting such a readable work on a subject that is too often made dry and uninteresting. The printing is good, paper of fine quality, and the general appearance very favorable to a good impression.

**Practical Diagnosis:** The Use of Symptoms in the Diagnosis of Disease. Fourth Edition, Revised and Enlarged. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; Laureate of the Medical Society of London, of the Royal Academy of Medicine of Belgium; Corresponding Fellow of the Sociedad Espanol De La Higiene of Madrid; Member of the Association of American Physicians; Fellow of the College of Physicians of Philadelphia, etc.; Author of A Textbook of Practical Therapeutics. Illustrated with 205 engravings and 14 colored plates. Lea Brothers & Co., 1899.

This is the fourth edition of a work the third edition of which only appeared in September, 1898. This bespeaks marked and well deserved popularity for the book. The arrangement, we notice, is quite different from that usually followed in textbooks on this subject, and is such as to make it a most ready reference book and guide for both student and practitioner. It contains 579 pages exclusive of a double index consisting of 51 pages. The cuts, consisting of 205 engravings and 14 colored plates, are what particularly interest us, for the reason that they are so suggestive, without being overdrawn. The three cuts on pages 274 and 275, illustrating the alar and phthisical chest, are very instructive, to say nothing of the elaborate cuts on the eye, skin and nervous system. Plate 3, however, illustrating in colors the typhoid tongue, bilious tongue, etc., could be improved upon very much; they convey the idea, but are far from true. Plates 12 and 13, illustrating the different forms and stages of the parasite of malaria, are the same as those found in Thayer, and are exceedingly good. The same is to be said of the cuts showing the microscopic appearance of the urinary sediments. We heartily commend the book.

**Progressive Medicine:** A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D. Volume II. June, 1899. Surgery of the Abdomen, including Hernia; Gynecology, Diseases of the Blood, Diathetic and Metabolic Disorders; Diseases of the Spleen, Thyroid Gland and Lymphatic System; Ophthalmology. Lea Brothers & Co., Philadelphia and New York, 1899.

The chapters on abdominal surgery, by Wm. B. Coley, include "the use of drainage in abdominal surgery," "the use of rubber gloves in abdominal surgery," "abdominal incisions," "the treatment of intestinal paralysis and peritonitis by enterostomy," "a review of the surgery for the complete removal of the stomach," "operations for malignant disease of the stomach, including resections and gastro-enterostomy," and "the surgery of gastric ulcer," with very complete illustrations of the various methods and steps in the same. There are twelve pages on the gall bladder and bile ducts, and chapters are given to the liver, duodenum and colon. Intestinal anastomosis is given twenty pages, operative treatment of hernia thirty pages, appendicitis sixteen pages. Laparotomy for various conditions is treated briefly, and the malignant disease of the rectum closes this reviewer's work. No one can fail to be edified by it.

Gynecology is given 104 pages by John G. Clark, who covers the year's literature very fully. Some of the chapters are: "Removal of ovary in hystero-myomectomy," "influence of castration upon the female," "methods of closing abdominal wounds," "gonorrhea in women," "retroflexion and radical operation for carcinoma uteri."

Alfred Stengel has the next department, with 117 pages. Among the subjects under diseases of the blood, he has technique of testing alkalinity, estimation of iron,



of hemoglobin by the specific gravity method; origin and classification of leukocytes, leukocytosis, eosinophiles, the various anemias, etc. Scurvy, hemophilia, paroxysmal hemoglobinuria, splenectomy, Addison's disease, diabetes mellitus, myxedema, Graves' disease, etc., etc., are also considered.

Ophthalmology, by Edward Jackson, covers ninety pages, with 326 references.

## BOOKS AND PAMPHLETS RECEIVED.

*Atlas of Diseases of the Skin, Including an Epitome of Pathology and Treatment.* By Prof. Dr. Franz Mracek, of Vienna. Authorized Translations from the German. Edited by Henry W. Stelwagon, M.D., PH.D., Clinical Professor of Dermatology at Jefferson Medical College of Philadelphia; Physician to the Department of Skin Diseases, Howard Hospital; Dermatologist to the Philadelphia Hospital, etc. With 63 colored plates and 39 full-page half-tone illustrations. Philadelphia: W. B. Saunders, 1899.

*An Epitome of the History of Medicine.* By Roswell Park, A.M., M.D., Professor of Surgery in the Medical Department of the University of Buffalo, etc. Based upon a Course of Lectures delivered in the University of Buffalo. Second Edition. Illustrated with portraits and other engravings. 6½ x 9½ inches. Pages, xiv-370. Extra cloth, \$2 net. The F. A. Davis Co., Publishers, Philadelphia.

*A Review of Recent Legal Decisions Affecting Physicians, Dentists, Druggists and the Public Health, Together with a Brief for the Prosecution of Unlicensed Practitioners of Medicine, Dentistry or Pharmacy, With a Paper upon Manslaughter, Christian Science and the Law, and Other Matter.* By W. A. Purrington, of the New York Bar, Counsel for the Dental Society of New York, and Lecturer on Medical and Dental Jurisprudence in the New York College of Dentistry, and one of the Collaborators in "A System of Legal Medicine," by Allan McLane Hamilton and Others, etc., etc. New York: E. B. Treat & Company, Publishers, 1899.

*The Newer Remedies—A Reference Manual for Physicians, Pharmacists and Students.* By Virgil Coblentz, A.M., PH.M., PH.D., F.C.S., etc., Professor of Chemistry and Physics in the New York College of Pharmacy; Author of "Handbook of Pharmacy;" Member of the Chemical Societies of Berlin and London; Fellow of the Society of Chemical Industry, etc., etc. Third Edition. Revised and very much enlarged. Philadelphia: P. Blakiston's Son & Co., 1899.

*Practical Diagnosis—The Use of Symptoms in the Diagnosis of Disease.* By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; Laureate of the Medical Society of London, of the Royal Academy of Medicine in Belgium; Corresponding Fellow of the Sociedad Espanol de la Higiene of Madrid; Member of the Association of American Physicians; Fellow of the College of Physicians of Philadelphia, etc.; Author of "A Textbook of Practical Therapeutics." Fourth Edition, revised and enlarged. Illustrated with 205 engravings and 14 colored plates. Lea Brothers & Co., Publishers, 1899.

*Progressive Medicine—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences.* Vol. II. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 472 pages, 56 illustrations and 3 full-page plates. Lea Bros. & Co., Philadelphia and New York.

*A Simple Method of Preparing a Serviceable Solution of the Supra-Renal Gland for Nasal or Laryngeal Application.* By M. D. Lederman, M.D. (Reprinted from the *Laryngoscope*, April, 1899.)

*The Progress of Otology.* By M. D. Lederman, M.D., New York. (Reprinted from the *Laryngoscope*, January, 1899.)

*Chronic Appendicitis the Chief Symptom and Most Important Complication of Movable Right Kidney.* By Geo. M. Edebohls, A.M., M.D. (Reprinted from the *Post-Graduate*, February, 1899.)

*Surgical Anatomy of Hernia, Observations Thereon, with Results of Fifty Dissections.* By Raymond Custer Turck, M.D. (Reprinted from the *Journal American Medical Association*, April 15, 1899.)

*The Influence of Turbinal Hypertrophy Upon the Pharynx.* By Lewis S. Somers, M.D., Philadelphia. (Reprinted from *University Medical Magazine*, May, 1899.)

*The Differential Diagnosis of Pharyngeal Syphilitic Lesions and Diphtheria.* By Lewis S. Somers, M.D., Philadelphia. (Reprinted from the *Philadelphia Medical Journal*, January 28, 1899.)

*Chronic Nephritis Affecting a Movable Kidney as an Indication for Nephropexy.* By George M. Edebohls, A.M., M.D., of New York. (Reprinted from the *Medical News*, April 22, 1899.)

*Furunculosis of External Auditory Meatus Followed by Suppurative Otitis Media, with Mastoid Involvement and Operation.* By M. D. Lederman, M.D., New York. (Reprinted from the *Laryngoscope*, April, 1897.)

*The Relations of Movable Kidney and Appendicitis to Each Other and to the Practice of Modern Gynecology.* By George M. Edebohls, A.M., M.D. (Reprinted from the *Medical Record*, March 11, 1899.)

*The Hernia Guarantee and the Minimum of Confinement After Operations for Appendicitis With and Without Pus.* By George M. Edebohls, A.M., M.D., of New York. (Reprinted from the *Medical Record*, May 13, 1899.)

*Angina Ludovici Complicating an Acute Suppurative Otitis—Recovery.* By M. D. Lederman, M.D. (Reprinted from the *Medical Record*, October 8, 1898.)

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## NEWS AND NOTES.

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DR. JOHN MAURY spent a week at Sewanee early in July.

DR. T. J. CROFFORD will spend the month of August in Canada.

DR. S. E. RICE left on July 14 for a ten days' vacation in East Tennessee.

DR. W. B. ROGERS has left the city for a rest of a month or six weeks.

DR. M. B. HERMAN has gone to Atlantic City for a month's vacation. He will return about August 15.

DR. CHAS. B. PENROSE has resigned the chair of gynecology at the University of Pennsylvania, and applicants for the position are requested to hand in their credentials to the board of trustees by September 18, 1899.

DR. FRANK M. RUMBOLD has disposed of his interest in *The Laryngoscope* to Dr. M. A. Goldstein. *The Laryngoscope* is the only regular monthly journal in this country devoted to diseases of the ear, nose and throat, and has been owned and edited by Drs. Rumbold and Goldstein jointly. Dr. Fayette C. Ewing has been added to the staff as abstract editor. The LANCET wishes its St. Louis contemporary and its able editor the fullest measure of success.

At the July meeting of the Memphis Medical Society, Dr. T. J. Crofford was recommended to the City Council for the position on the gynecological staff of the City Hospital, made vacant by the resignation of Dr. R. B. Maury.

THE Illinois State Medical Society has decided to publish its transactions in journal form, and the first number bears the date of July, 1899. All the matter is what pertains to the society and its members, and the journal is well gotten up.

DR. EDWARD DANA MITCHELL, having completed his year of service as resident physician at St. Agnes Hospital, Philadelphia, has returned to Memphis, and will be associated with Drs. Mitchell and Maury. Dr. Mitchell is a graduate of the University of Pennsylvania, and a son of the late Dr. Edward Mitchell.

THE *American Medical Quarterly*, published in New York, has made its appearance, and if it lives up to the character of its first number it will rank as positively the best American medical journal. The field of medical journalism is well occupied, but there is plenty of room for such splendid new comers as this.

ACCORDING to the lay press, a boy in South Braintree, Mass., is said to possess "X-ray eyes." He has diagnosed accurately a number of fractures, and excluded foreign body in the stomach in a case in which a post-mortem proved him to be correct. The boy is 12 years old, and not otherwise different from any other boy.

THE American Electro-Therapeutic Association will hold its ninth annual meeting at Washington, D. C., September 19, 20, 21, 1899. The committee promises a reception by the President of the United States, an excursion to Mt. Vernon, Arlington and Alexandria (a buffet lunch to be served at Alexandria), and an evening visit to the Congressional Library, to be viewed under electrical illumination. Provisions have also been made to visit the War, State and Navy Departments, the United States Treasury, and other public buildings.

MR. SAUNDERS announces the early appearance of the following books: "The Hygiene of Transmissible Diseases," by Dr. A. C. Abbott, of the University of Pennsylvania; "The International Textbook of Surgery" (in two volumes), edited by J. Collins Warren and A. Pearce Gould; "A Textbook of Embryology," by J. C.

Heisler; "Diseases of the Nose and Throat," by D. Braden Kyle; "The Treatment of Pelvic Inflammations Through the Vagina," by W. R. Pryor; and "A Manual of Diseases of the Eye," by Edward Jackson. This is a notable addition to medical literature, and all the books will be gotten up in Mr. Saunders' usual excellent style.

THE daily papers have contained glowing descriptions lately of a serum for yellow fever, prepared by Dr. Alvah H. Doty, health officer of the port of New York, and used successfully on a yellow fever patient in quarantine. The serum was obtained from the germ isolated from some cases of yellow fever at Swinburne Island in 1897. This germ, if not the bacillus coli communis, is, according to one of Sanarelli's assistants, identical with Sanarelli's bacillus icteroides, and the serum probably the same as his anti-marillic serum. It will be remembered that Sanarelli tested his serum by inoculating and treating patients furnished him by the government of Uruguay from its insane asylums, and his conclusions, as well as those of the Army Medical Museum and Marine Hospital Service, were anything but enthusiastic. The daily papers are therefore, with their characteristic propensity for error in medical matters, making a great deal out of what is really a very little.

We have received the following resolution, which is self explanatory:

WHEREAS, The position of the Surgeon-General of the United States Army involves great and grave responsibility, the direction of vast interest, the highest order of professional skill and learning and executive ability, and

WHEREAS, The number of officers and soldiers under the direction of the surgeon-general in an army organized as is the Army of the United States is greater than the command of a division commander,

*Be it resolved by the Medical Association of Georgia,* That it is the sense of this body that the Surgeon-General of the Army should have the rank, pay and allowances of a major-general;

*Resolved,* That the Medical Association of Georgia requests all the medical societies of the United States to join in this appeal;

*Resolved by the Medical Association of Georgia,* That copies of these resolutions be transmitted to the President of the United States, the Honorable Secretary of War, and our Senators and Representatives in Congress, with the request that all cooperate in attaining the end sought; and further, that copies be also sent to the American Medical Association, and all other medical societies in the United States, with the request that they join in this memorial to Congress and urge prompt action upon this subject by our national legislative authorities.

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placed in us by the medical profession and public, and we assure both that we guard it zealously. Our every effort is to deserve more and more the continued good faith and patronage of both. Our past success is due entirely to our painstaking and careful service, combined with the use of the BEST goods obtainable. On this basis we shall continue to do business.

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I have found protonuclein especially useful in the treatment of broncho-pneumonia in infants and children. In these cases I usually give from two to four grains, according to age, repeated every two to three hours, and find that recovery takes place in from three to five days. I have had remarkable success in treating pneumonia with this preparation, and will briefly report three cases.

Case I. My mother, aged 72 years, on April 8, 1897, suffered a severe chill about 9 o'clock in the evening. Two hours later, when I first saw her, she complained of pain in the right side, was coughing up bloody mucus, and was very uneasy. Her heart had been irregular for some years, but now the pulse was 130 and her temperature 103°. Physical examination revealed pneumonia of the right lung. I prescribed two grains of phenacetin and six grains of protonuclein, to be repeated every two hours. By 10 o'clock the next day her temperature was 99½° and her pulse 108; the pain in her side was less, and she felt much better. The phenacetin was discontinued and the protonuclein continued. By the third day her temperature was normal, and she felt so well that in spite of my protests she was determined to sit up. She coughed up rust-colored sputum for six or seven days, but otherwise felt quite well. She has had no trouble with her lungs since.

Case II. J. R., a female, aged 20 years, had a chill at 6 o'clock in the morning, followed by fever and pain in the left side. I saw patient first at 8 o'clock P.M. next day, when her temperature was 102°, pulse 115, respiration short, with pain in the left side and dullness on percussion over lower half of left lung. I prescribed six grains of protonuclein and two grains of phenacetin, and ordered the dose to be repeated every two hours. Next day at 4 o'clock P.M. her temperature was 101°, pulse 108, and she felt and looked better, but coughed up bloody mucus. The third day at 4 o'clock P.M. her temperature was 104°, pulse 120, and she felt worse, having more pain in her side, coughing up much bloody mucus, and feeling restless. On inquiry I found that

she had only received her medicine every four hours, instead of every two hours, as I had directed. I now prescribed nine grains of protonuclein and two grains of phenacetin, and ordered that the dose be repeated every two hours. The fourth day at 3 o'clock P.M. her temperature was  $99\frac{1}{2}^{\circ}$ , pulse 96, and she felt better, coughed less, and had but little pain. The protonuclein and phenacetin were continued. The fifth day at 4 o'clock P.M. her temperature was  $98^{\circ}$ , pulse 83, but little bloody mucus being expectorated, lungs clearing up, and she felt like leaving the bed. The protonuclein was continued and phenacetin discontinued. The sixth day her temperature and pulse were normal, appetite good, and patient convalescent. I prescribed nine grains of protonuclein, the dose to be repeated four times a day for a few days, after which no further medication was required.

Case III. C. G., a male, aged 63 years, had not felt well for several days, and was taken with a fever the day before I saw him. Patient complained of pain in his right side and difficulty in breathing. His temperature was  $102\frac{3}{4}^{\circ}$ , pulse 110, and the lower portion of his left lung was inflamed. I prescribed six grains of protonuclein, and ordered that the dose be repeated every two hours. The next day there was hepatization of the lower half of the right lung, with a temperature of  $102^{\circ}$  and a pulse of 108. The protonuclein was now increased to nine grains, repeated every two hours. The third day the temperature was  $101^{\circ}$  and the pulse 100; he felt better, and on examination the lung was found to be clearing up. The protonuclein was continued. On the

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### *To the Medical Profession:*

The Board of Health makes the following examinations free for the city Physicians: Exudate and sputum for diphtheria and tubercle bacilli, typhoid and yellow fever blood reaction and malaria organisms, well and cistern water and milk.

For other work I will charge the following fees: Urinalysis, chemical and microscopical, \$2.00; including staining for tubercle bacilli, \$3.50. Quantitative for sugar, \$2.50. This covers the work necessary to make a conscientious diagnosis, and for *life insurance*. Pus for gonococci and other microorganisms, \$2.00. Feces for parasites, eggs, etc., \$5.00. Blood for typhoid and yellow fever reaction, for malaria organisms, diphtheria exudate and sputum for tubercle bacilli, \$2.00. Other examinations for poisons, etc., according to labor and material consumed.

**FELIX PAQUIN, Ph. B.,**

Chemist and Bacteriologist of the Board of Health.  
Member of the Association of Official Agricultural Chemists.

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fourth day the temperature was  $98^{\circ}$ , the pulse 84; patient had enjoyed a night's rest, appetite was returning, and lung much improved. The fifth day I found my patient dressed and sitting in a chair; he said he felt well, but I persuaded him to go back to bed, fearing something might happen. I continued the protonuclein four times a day for a few days, when he made a complete recovery.

I have treated ten cases of typhoid fever with protonuclein, all of which made unusually early recoveries, considering the severity of the early symptoms of some cases. I will briefly report a case.

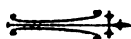
E. H., a female, aged 22 years, had been sick one day. When I first saw patient her temperature was  $105^{\circ}$  and her pulse 120; she was restless, talked in her sleep, skin dry, tongue dry, face flushed. An examination of her lungs revealed no indications of pneumonia. Diagnosis doubtful. I prescribed three grains each of protonuclein and phenacetin, to be repeated every two hours. The next day the temperature was reduced to  $103\frac{1}{2}^{\circ}$ , pulse 115, but patient was still restless, skin somewhat moist, tongue dry. On the third day her temperature was  $104^{\circ}$ , pulse 118, and she felt worse. The phenacetin and protonuclein were increased to four grains each, the dose repeated every two hours. On the fourth day her temperature was  $103\frac{3}{4}^{\circ}$ , pulse 121, but she felt no better. The capillary circulation was not good. The phenacetin was discontinued; and protonuclein, six grains, and quinin, two grains, repeated every three

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hours, were given. On the fifth day her temperature was 105°, pulse 123, bowels moved three times, other conditions not improved. Diagnosis, typhoid fever. The quinin was discontinued and the protonuclein continued, six grains every three hours. Cold packs were ordered every four hours when the temperature exceeded 102°. The cold packs were not used as often as directed, but were applied three or four times a day. The temperature came down gradually and the pulse improved until the thirteenth day, when the cold packs were discontinued, the temperature no longer rising above 102°. From the sixth to the twelfth day there was considerable diarrhea, the bowels moving from three to seven times in twenty-four hours. For this condition turpentine emulsion and bismuth were given. On the morning of the sixteenth day the temperature was normal, pulse 91; the diarrhea had ceased, she looked bright and felt good. After this the temperature varied from normal to 101° until the twenty-third day, when it suddenly ran up to 104°. The cold pack was applied but once, her temperature came down readily, and the patient made a rapid recovery, being able to sit up before the end of the fourth week. The appetite returned about the eighteenth day, and was good henceforth, except when she had the high fever on the twenty-third day. She lost her hair, as typhoid patients usually do, after convalescence.

This case started with unusual severity, and promised to be a dangerous or prolonged one. Her unusual early recovery, in my opinion, can be attributed to nothing but the protonuclein, which was continued until convalescence was completely established.

Protonuclein has a wonderful effect in maintaining the spirits and vitality of a patient during fever, and has no depressing effect, while it reduces the temperature. This is particularly noticeable in typhoid cases. They do not lapse into that stupid condition which is so characteristic of this disease.



When protonuclein is taken in large doses, say ten to fifteen grains, repeated every two or three hours, it produces a deafness and ringing in the ears very similar to that produced by large doses of quinin. In such doses it may also cause an unsteadiness of the nerves and an increased frequency of the heart's action. If this condition is observed during the treatment of a disease, it is well to withhold a few doses, when these symptoms will readily disappear, without leaving any bad effects.

I have given protonuclein in scarlet fever, with the effect of having the temperature decline and the swelling of the glands of the neck disappear while the rash is coming out. I have given it with great success in puerperal fever, erysipelas, infected wounds, and, in fact, consider it a valuable remedy in all infectious diseases.

Protonuclein also has quite marked tonic effects, which are particularly noticeable when given in cases of general debility resulting from advanced age. As a tonic it should be given in from six to nine grain doses after meals and at bedtime. In neurasthenic cases it is of benefit, restoring a normal tone to the nervous system. I have given it in a few cases of whoopingcough with benefit. I have given it to a few tubercular cases, but cannot say that it was followed by especial improvement. In cases wherein the temperature is high, I usually prescribe small doses of phenacetin as a palliative remedy to assist in bringing down the temperature until the protonuclein has time to produce results.

I consider protonuclein a very valuable addition to our remedies in combating disease, and feel that all who use it in large doses will be gratified with its results.—G. W. Sherman, M.D., Detroit, Mich., in the *Physician and Surgeon*.

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*And Where Nature fails to make Good Blood,*

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The Universal Auxiliary of Modern Medicine and Surgery,  
and the TRUE "ANTITOXIN" of Healthy Nature.

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Aye! Get Good Blood—but How? Not by the Alimentary Process. It has already failed to do its work (else the patient would not be sick); and in acute disease must not even be allowed to do the work it can. Stimulate as you will, the whole sum of the patient's alimentary power when fully forced into play, is unable to keep up the nourishing and supporting contents of the blood. There is absolutely but one thing to do; and, thank God, that can be done, usually with success, as ten-thousand-fold experience has proved. That one thing is this: where Nature fails to PRODUCE good and sufficient Blood, WE CAN INTRODUCE IT from the arteries of the sturdy bullock, by the medium of BOVININE.

The vital activity of this living blood conserve rests on no man's assertion: it speaks for itself, to every properly equipped physician who will test its properties microscopically, physically, or therapeutically.

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**TRY it in *Anæmia***, measuring the increase of red cells and hæmaglobin in the blood as you proceed, together with the improving strength and functions of your patient.

**Try it in *Consumption***, with the same tests from week to week.

**Try it in *Dyspepsia*** or Malnutrition of young or old, and watch the recuperation of the paralysed alimentary powers.

**Try it in *Intestinal*** or gastric irritation, inflammation, or ulceration, that inhibits food itself, and witness the nourishing, supporting and healing work done entirely by absorption, without the slightest functional labor or irritation; even in the most delicate and critical conditions, such as Typhoid Fever and other dangerous gastro-intestinal diseases, Cholera Infantum, Marasmus, Diarrhoea, Dysentery, etc.

**Try it *per rectum***, when the stomach is entirely unavailable or inadequate.

**Try it by *subcutaneous*** injection, when collapse calls for instantaneous blood supply—so much better than blood-dilution!

**Try it on *Chronic Ulceration***, in connection with your antiseptic and stimulating treatment (which affords no nourishment) and prove the certainty and power of topical blood nutrition, abolishing pus, stench, and PAIN, and healing with magical rapidity and *finality*.

**Try it in *Chronic Catarrhal Diseases***; spraying it on the diseased surfaces, with immediate addition of peroxide of hydrogen; wash off instantly the decomposed exudation, scabs and dead tissue with antiseptic solution (Thiersch's); and then see how the mucous membrane stripped open and clean, will absorb nutrition, vitality and health from intermediate applications of pure bovinine.

**Try it on the *Diphtheritic Membrane*** itself, by the same process; so keeping the parts clean and unobstructed, washing away the poison, and meanwhile sustaining the strength independently of the impaired alimentary process and of exhaustive stimulants.

**Try it on *anything***, except plethora or unreduced inflammation; but first take time to regulate the secretions and functions.

**Try it on the *patient*** tentatively at first, to see how much and how often, and in what medium, it will prove most acceptable—in water, milk, coffee, wine, grape, lemon or lime juice, broth, etc. A few cases may even have to begin by drops in crushed ice.

A New Hand-book of Hæmatherapy for 1898, epitomizing the clinical experience of the previous three or four years, from the extensive reports of Hospital and private practice. To be obtained of  
**THE BOVININE COMPANY, 75 W. Houston Street, New York.**

# THE MEMPHIS LANCET.

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## ORIGINAL ARTICLES.

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### THE OPERATIVE TREATMENT OF EXOPHTHALMIC GOITRE.\*

BY KARL DOEPFNER, M.D.  
CHICAGO, ILL.

The manifold symptoms of exophthalmic goitre are now well known. The pathogenesis, on the contrary, is as yet very problematical. Theories we have had more than twenty, but not one of them could explain all the symptoms in a satisfactory manner. Pathological findings have been described in different organs, but their interpretation was soon contested. More than a thousand papers have been written about this interesting disease, and yet the discussion is far from being closed.

There are really only three different theories, the hematogenous, neurogenous, and thyrogenous, but each of these has several subdivisions. For instance: the early writers had many things to say about dyscrasia of the blood, anemia, scrofulosis, arthritism, even scurvy; so Graves, Trousseau, Basedow and their predecessors. Humoral pathology was then in full sway.† The believers in the neurogenous theory saw the trouble either in the sympathetic or in the pneumogastric nerve, in an affection of the bulbous or in

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\* Read before the Illinois State Medical Society, Cairo, May, 1899.

† Exophthalmic goitre was known as early as 1786 to an Englishman named Parry. But he, unlike our brethren of today, did not publish his observations before 1825. His idea was that the disease was of a hysterical nature.

a general vasomotor neurosis. In 1886 the thyrogenous theory came into evidence, and its followers maintain that there is either a quantitative change in the secretion of the thyroid juice (hyperthyroidization) or a qualitative change (dysthyroidization).

Each of the three principal theories has its partisans today, even the hematogenous, only the idea is a much clearer one according to our better knowledge of physiologic chemistry and metabolism. But I repeat that there are many other theories, most of which have passed into due oblivion. For not only did the pathologist not corroborate them, but the practitioner could not make any use of them for his therapeutic actions.

It was a long time until surgery began to participate in curing exophthalmic goitre. The surgeon first fought against symptoms only. The biggest operation ever advised was tracheotomy (Trousseau) in threatening asphyxia during a paroxysm. As I consider bleeding to belong to minor surgery it must be mentioned here. Trousseau always recommended it, "not with the view of combating the anemia and the nervous element of the disease. It is only with one end in view, namely, that of averting the imminent danger which may result from congestion of the thyroid body, of preventing asphyxia, by depleting the blood vessels, and of quieting palpitation (*Lectures on Clinical Medicine*, London, 1868)." He really saw a marked improvement in such a case after a few hours, followed by a cure after some weeks. However, it must be said that at the same time he used digitalis in large doses, and applied hydrotherapy. Others, believing also and even more in dyscrasia of the blood, resorted to bleeding and had similar results.

Remember this fact: It is true the old method of bleeding has long since been abandoned, but do we not even today bleed our patients only in a different manner? The celebrated von Graefe devised operations against the sad complications of exophthalmos: a tarsorrhaphy and a tenotomia partialis musculi levatoris palpebræ. Some directed their attention to the struma. Galvano-puncture was tried (Eulenburg, 1875), injections of iodine (Ollier, 1877), injections of perchlorid of iron (Hanfield Jones, 1864, 10 minims; he never did it again!) a seton was applied (Macnaughton Jones, 1874), followed by many months suppuration, chlorid of zinc (Jones), and a caustic paste (Ollier), etc. But Eulenburg wrote (1878) that all these measures had been of little or no avail. Some

specialist of course treated the nose (Hack, 1886), and, strange to say, had a success, a fact which corroborated the sympathetic theory.

Of a somewhat causal therapy we can only speak, since Moebius (1886) and Gauthier published their different views on the secretion of the thyroid gland and established the so-called thyroid, or "thyro-gene" theory according to Eulenburg. Now only the surgeon had a reason to intervene, for there was some hope of curing this disease by partial or even total removal of the thyroid gland. I do not mean to say that before this time (1886) the surgeons did not operate upon the thyroid gland in exophthalmic goitre cases. Strumectomy was tried as early as 1860 (Tillaux), later by Ollier and Lister (1877), and by Tillaux again in 1880. In 1884 Rehn (Frankfort) published three cases, followed in 1885 by Mikulicz. But these operations, total or partial extirpations and enucleations, were only undertaken in order to combat one symptom—the goitre. Nevertheless, some of the daring surgeons had cured their patients.

When Moebius and Gauthier's very plausible theories became known the surgeons for the first time had a real argument, which allowed a causal operative treatment, and they made use of it. In fact, the final results of many operations soon seemed to prove that the *primum movens* of the disease had its seat in the thyroid gland, that is, in its abnormal internal secretion which poisoned the body and produced symptoms which otherwise were so difficult to explain.

Different statistics have been published.. Allen Starr, of New York, has collected 190 cases (*Med. News*, 1896, p. 427), in which number are included most of the European and American cases. As far as I can see, partial extirpation was mostly done. I cannot convince myself that all the cases described as total extirpations are true thyroidectomies, for it is not such an easy matter to really extirpate the whole thyroid gland. Some of the cases were exothyropexies (Poncet), others enucleations. Out of the 190 cases 45 cannot be made use of, for want of exact information. The results are:

74 cured, or 51 per cent.

54 improved, or 31 per cent.

3 not improved, or 2 per cent.

23 died, or 15.8 per cent.

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The most remarkable fact in this table is the percentage of death immediately after the operation—15.8 per cent. And this death is not accounted for by hemorrhage or want of cleanliness or technique. From a few hours to a few days after the operation the patient may have sudden hyperpyrexia (104–107° F.), rapid pulse, restlessness, profuse perspiration, delirium, and death from heart failure. We look now at these symptoms as an acute poisoning of the body by so-called “hyperthyroidization.” The gland is supposed to secrete an abnormal (quantitative or qualitative, or perhaps both) juice in consequence of the irritation by the handling during the operation. This is a plausible explanation, but I doubt its correctness, for there are observations in the literature of similar symptoms, followed by death without any operation. The physicians of that time called “paroxysm” what we now name “hyper- or dysthyroidization.” Exactly for these symptoms Trousseau advised bleeding, the old-fashioned bleeding. And now our patients die when we have bled them according to our newest methods. Kocher himself, the most experienced operator for goitre, who has not had one death in his last 600 cases, has a mortality of 8.8 per cent in the operative treatment of exophthalmic goitre (3 out of 34 cases).

There exists another statistic, which I think is the last one. Sorga collected 174 operated cases, which had been published from 1894 to 1896. In 2 cases the final result is not known, leaving 172. Of these were:

Much improved 27, or 15.2 per cent.

Considerably improved 62, or 36 per cent.

Cured 48, or 27.9 per cent.

Not improved or worse 11, or 6.4 per cent.

Died soon after operation 24, or 13.9 per cent.

You will notice that Sorga makes two divisions with the improved; if not he would have as much as 51.2 per cent. improved patients. His number of cured shows only 27.9 per cent. instead of 51 per cent. in Allen Starr's table. It may be that in the latter table the “much improved” are numbered with the cured, for many a surgeon would perhaps say, “this patient is cured,” whereas the neurologist, for instance, would say, “no, she is only improved.” Therefore take it, like all other statistics, *cum grano salis*. The death rate is lower but still high. It is to be remembered that the

death rate in surgical statistics is rather too low. There is no more euphemistic man than the surgeon if it comes to a discussion about the death after operations: chloroform, ether, shock, intercurrent disease, and what else!

Until 1897 most of the surgeons recommended partial strumectomy in exophthalmic goitre. The general opinion was that any operation which effected the reduction of the size of the struma would benefit the patients (*German Congress of Surgery*, 1895). Some surgeons even had gone so far as to say that exophthalmic goitre was a strictly surgical disease, to which the physicians object, I think, with good reason.

In April, 1896, Jaboulay, of Lyons, had the idea of cutting the sympathetic nerve below the superior ganglion. The patient, whose thyroid gland had already been subjected to different operations (exothyropexy and partial extirpation), improved rapidly, and was cured. Jaboulay's first *sympathotomy*, as he called this operation, was supported by the old theory that exophthalmic goitre was caused by an affection within the sphere of the cervical part of the sympathetic nerve. Two of the cardinal symptoms, he says, may be readily explained by the supposition of an intense excitation of the cervical sympathetic, namely, exophthalmos and palpitation. So he performed this operation.

Jonnesco, of Bucharest, not only cut the sympathetic nerve, but resected the whole cervical part on both sides, including the three ganglia (1896). This operation is called *sympathicectomy*. Not only should this very difficult operation be good against exophthalmic goitre, but also benefit idiopathic epilepsy and glaucoma. His supposition is, that the destruction of the whole cervical portion abolishes the irritation in the nerve, which is responsible for exophthalmos, goitre, and palpitation. Destruction, he thinks, prevents exophthalmos only. In February, 1899, he published his results in the *Centralblatt für Chirurgie*. Out of 10 operations for exophthalmic goitre he cured 6 patients. Four were decidedly improved; no death.

In France Jaboulay's or Jonnesco's operations have been performed with good results many times within the last three years. But I do not yet venture to compile the cases and give statistics. Death occurred in a few cases, but the percentage seems not to be so high as in goitre operations. Suffice it to say that the old sym-



pathetic theory is coming to the foreground again. Already Morat (*Presse med.*, 1897) and Dastre (*Compt. rend. soc. de biol.*, 1899) have undertaken physiologic experiments in order to examine whether the surgeons are right. So far Jonnesco seems not to be wrong.

In this country, England and Germany the surgeons have been conservative. They adhere to the thyrogenous theory. Many operations, with about 50 per cent. of good results and 25 per cent. of improvements, have been reported within the last two years in these countries. But always that high death rate of about 15 per cent. All I have learned by perusing the literature, and out of my own experience, induces me to come to the following conclusions:

Exophthalmic goitre should first be treated by the scientific, well-trained physician. I would give preference to a rest cure and a mild hydropathic treatment. But if, after such a prolonged and careful treatment the patient makes no progress or gets worse, becomes intractable, partial thyroidectomy should be proposed. The patient should be told the plain truth and decide herself without being pressed. If the heart is not yet overworked the outlook is better. Local anesthesia is preferable to all other methods. Never use chloroform. Remove at least one-half of the thyroid gland; if possible more.

The surgeon should watch the progress of the new operations upon the sympathetic system. Sympathicotomy is an easy, sympathicectomy a very difficult operation.

581 Orchard street.

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## DIFFERENTIAL DIAGNOSIS OF THE CONTINUED FEVERS.\*

BY M. GOLTMAN, C.M., M.D.

MEMPHIS.

Surgeon to the Shelby County Poor and Insane Asylum and Leath Orphan Asylum; Physician to the City Hospital.

In discussing the differential diagnosis of typhoid, malaria in all its forms and other conditions in which fever is a conspicuous symptom, it might be well to consider them first from the clinical standpoint, second from the microscopic standpoint, and third from the therapeutic standpoint, wherever this can be done.

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\* Read before the Memphis Medical Society, August 1, 1899.

Given a case wherein there has been considerable lassitude, weakness, throbbing headache, perhaps a little diarrhea, fever, anorexia, perhaps a nose bleed or two, all dating back only a week or two, and then finding the patient in bed with dull and listless expression (hangdog look), with coated and tremulous tongue, weak and perhaps dicrotic pulse, enlarged spleen, a temperature of  $102^{\circ}$  or over and which rises daily until its height is reached, with morning remissions and evening exacerbations, together with gurgling in the right iliac fossa, abdominal swelling and meteorism, and a rose rash which appears about the fifth to the tenth day of the disease, and there is apparently no difficulty in diagnosing typhoid fever.

I think this draws a fairly good clinical picture of typhoid fever, and yet I well remember seeing just such a case, in the post-mortem room, whose card read "enteric fever," reveal an acute miliary tuberculosis. The symptoms were passed upon by men recognized the world over as clinicians, but yet the mistake was made, since the symptoms of the two diseases are often almost identical. Hare says: "Typhoid is a peculiar disease." Evidently it is. And when I again bring to your notice the case of enteric fever that I once saw ushered in with acute and violent mania, where the patient, a young girl of 21, was on the point of being sent to the lunatic asylum because she tried to destroy herself and everybody else in sight, having been picked off the fire escape of the hospital just in time to prevent her jumping from it, and when I also recall to your minds the case of "inverted typhoid" that I reported before this Society in 1898, which was masked in its onset by a tertian malaria, after which the temperature and pulse ran a subnormal course throughout the disease, and in which report I stated that much of the pathology of typhoid usually taught was incorrect, which idea was of course scouted, but I can now mention Osler's "kidney typhoid" in support of my contention. Osler also says that he has thrice performed autopsies in cases where the onset of the disease was marked by headache, photophobia, delirium, twitching of the muscles and retraction of the head, and where cerebro-spinal meningitis had been diagnosed, the autopsies revealed enteric fever. He further says that fully one-half of the cases coming under the category of brain fever belong to typhoid fever, with severe nervous symptoms. This is somewhat startling at first glance, but it is in

all probability only too true. From pneumonia, particularly in the aged, and still more particularly when pneumonia complicates typhoid, or vice versa, the diagnosis is exceedingly difficult by clinical means alone. The same is to be said of some cases of ulcerative endocarditis and other pyemic conditions, not excluding those cases of deep-seated suppuration in which chills and sweats are sometimes conspicuous by their absence. When we bear all this in mind, together with the fact that malaria, in its many forms, may mask, complicate and simulate typhoid and other fevers to such a degree that it almost becomes an impossibility to differentiate them from the clinical standpoint alone, it behooves us to recognize and acknowledge that we must look for assistance beyond the powers of nature's lenses and call to our aid the lenses of the instrument maker, as well as every other available diagnostic means. This applies to every section of the globe, but here in the South it is particularly applicable.

According to Musser, fever is due to (1) infections, acute or chronic; (2) inflammations; (3) intoxications. The following is a brief summary:

1. Infections. Zymotic fevers; fever due to ptomaines or toxalbumins produced by action of a parasite.

2. Inflammations—traumatic from an injury. Inflammation of organs, as in pleuritis, meningitis, peritonitis, pneumonia. It is questionable to my mind if fever here is due to the inflammation alone. I think the resulting toxemia is an influential factor.

3. Fever of central origin, as in brain tumor, apoplexy and sunstroke, by disturbing the heat centers.

4. Fevers from auto-intoxication. These are the most puzzling to the physician, and often serve as a cloak that covers a multitude of ignorance.

5. Fever of anemia or starvation. This may account for some of the post-typhoidal elevations usually ascribed to nervousness and auto-intoxication from errors in diet, etc.

6. Fever from puerperal irritation, e. g., teething, adherent prepuce, etc.

7. Nervous fever. These cases are met with in the nervously exhausted and overworked. The fever may last for two months, with a temperature ranging between 100° and 103° F. A local authority would call this "Felix fever," and another local authority calls it X fever. It is frequently seen in nurses.

I only attempt to treat the etiologic factors of fevers, which are indeed almost countless, sufficiently to give them some importance in a diagnostic sense and from a clinical standpoint. To attempt to do more would carry me beyond the limits of your patience.

It might now be well to consider the significance of elevated temperature before attempting to differentiate.

"The significance of a raised bodily temperature from a physiologic standpoint is, that the nervous centers governing heat production and heat dissipation are disturbed by some substance circulating in the blood or by reflex irritation, or perhaps both. The danger of high fever is, that it may cause coagulation of the protoplasm of the heart or vital centers at the base of the brain. \* \* In some cases (anthrax, etc.) moderate fever probably aids the body in throwing off, or rather conquering, the disease which has attacked it, in three ways, namely, by producing a temperature less favorable to the growth of certain disease germs than is the bodily temperature in health; by increasing cellular activity it may increase phagocytosis and the development of antitoxic materials; and, finally, by virtue of the increased temperature the effects of the poisons may be rendered nil (Hare)."

We may now consider the differential diagnosis.

The differential diagnosis of acute tuberculosis from typhoid:

*Symptomatically.* They are much alike in the early stages, and there is little to distinguish them. The family history is often of value. The spleen is enlarged in both diseases, but most so in typhoid. The lesions in the lungs in typhoid are at the bases (hypostatic), in tuberculosis oftener at the apices.

*Microscopically.* Leukocytosis in acute tuberculosis; absence of same in typhoid, except when peritonitis or pneumonia complicates matters; tubercle bacilli. The presence of the Widal reaction and the cultivation of the Eberth bacillus from the blood of the spleen or feces leaves no room for doubt.

*Therapeutically.* In those cases where the fever is not too high it is wise not to forget the tuberculin test, since this will usually disclose a decided reaction when tubercle is present.

"The febrile movement and other symptoms of enteric fever are often imitated very closely by those of ulcerative endocarditis of a typhoid type. In addition to an irregular fever, there may be

diarrhea, parotites, stupor, and progressive feebleness in both diseases. An examination of the heart may reveal the presence of endocarditis or the existence of some focus of infection, such as a wound or septic process, e. g., osteo-myelitis has been mistaken for typhoid (Goldtdammer), or the fact that the patient is in the puerperium, will, in combination with the sudden development of endocarditis, render a diagnosis possible (Hare)."

*Microscopically.* We have the presence or absence of the Widal reaction, which bespeaks the presence or absence of typhoid. A leukocytosis consisting of an increase of the multinuclear cells and diminution of the mononuclear cells would indicate endocarditis and other varieties of sepsis unless this is so severe that reaction cannot take place. The diazo-reaction would probably be present in both diseases, and likewise peptonuria.

*Therapeutically.* Anti-streptococcic serum might show some specific effect in septic conditions.

A fever which rises sharply from normal to 103° or 104°, being preceded by a chill and followed in a very few hours by a sweat, the whole term of acute illness lasting about eight or ten hours, is, in the majority of instances, in this section at least, an intermittent malarial fever, which may be quotidian, double quotidian, tertian, double tertian, quartan, etc.

*Microscopically.* If malaria, we would find the hematozoon malarie and the absence of leukocytosis, the presence of which would indicate some other disease or complication, possibly a suppurative affection like cerebro-spinal meningitis, in which event lumbar puncture and the cultivation of the diplococcus intracellularis meningitidis will clinch the diagnosis.

*Therapeutically.* Quinin, properly given, would control the paroxysms if of malarial origin, as well as give rise to leukocytosis.

With a history of dysentery in the presence of intermittent or remittent fever, and after carefully excluding malaria, tuberculosis and cholangitis, liver abscess must be thought of and searched for. Profuse sweats will usually aid in the diagnosis, and hepatic enlargement will always be found, and pressure between the ribs will invariably elicit considerable pain if it is an abscess or a hepatitis. I have recently had a case, however, where neither sweats nor characteristic temperature was present. The blood showed a marked polymorphonuclear leukocytosis and the urine peptonuria, on the

strength of which, together with enlargement and pain, I operated and evacuated about a pint of pus.

It is well also to remember that chills, fever and sweats are sometimes seen in cachectic persons, as a result of pernicious anemia. An examination of the blood cannot but reveal the diagnosis if any doubt exists (*vide Cabot*). It will be well, too, in the presence of doubtful fevers to think of syphilitic fever, in which the therapeutic test, in the shape of iodid of potash or mercury will clear up the diagnosis, and also uremic fever (*Stengel*), in which the patient may lie for weeks in a condition of torpor and unconsciousness, with heavily coated and dry tongue, muscular twitching, rapid pulse and more or less fever. *Osler*, in speaking of the latter, says: "I have known them to be mistaken for typhoid fever and for miliary tuberculosis."

Finally, we come to the "contention fever"—pardon the attempted witticism—the fever which, if it resists quinin and *salivation*, is very often pronounced typhoid in this section of the country where comparatively little typhoid is seen, and in the East, where much typhoid and little malaria, the severer forms at least, are seen, there is a tendency to flaunt the doctrine of "fever resisting quinin not malarial." This is preposterous. I have pointed out, and might say have proved, that we have here fevers that are malarial and resist quinin, no matter how given or in what proportion. Others have done the same thing, and I only mention it here for the sake of adding emphasis to the statement. There is no doubt, however, that mistakes are made both ways in these cases; that is, continued malarial fevers are called typhoids and typhoids are called malarial fevers.

Thayer's table is here useful for differentiation, and I present it in toto, although I take the liberty of expressing my opinion where a difference of experience exists:

**Thayer's Table.**

REMITTENT FEVER.	TYPHOID FEVER.
Onset generally intermittent.	Onset gradual and progressive.
Irregular remissions.	Regular, though very slight, morning remissions, with evening exacerbations of temperature.
The temperature may arrive at 40° C. (104° F.) within twenty-four hours.	The temperature does not reach 40° C. (104° F.) before the third or fourth day.

Headache rare in the beginning (I find severe throbbing headaches quite frequent, if not the rule)—of a neuralgic character, pulsating, variable in its position and intensity; sclera subicteric from the onset.

The apathetic expression of the face, the dryness of the tongue, and sordes upon the teeth, are not very marked.

Breath foul.

The delirium may come on in the early days; it is recurrent, but changes with the exacerbations of temperature and other symptoms, and may give way to grave symptoms related to other organs, e. g., hepatitis and renal congestion.

If there be pulmonary congestion, the cough and other symptoms come on suddenly; the areas affected change from one to the other lobe or lung, and may disappear and reappear again with varying intensity; dyspnea is very pronounced; circulatory disturbances are marked, even syncope.

There are usually restlessness and anxiety (jactitatio corporis).

Peculiar grayish color of skin; sometimes a slight jaundice. (Nearly always some jaundice.)

Herpes common.

Anemia more or less marked early in the course.

No characteristic exanthem; urticaria not uncommon.

At times there may be transient tympanites or ileo-cecal gurgling; they are but slightly pronounced and paroxysmal; diarrhea is slight or absent, and has not the characters of that in typhoid fever. (I find diarrhea frequent.)

No distinct course.

Urine high colored; may show a trace of bile; Ehrich's diazo-reaction rarely present. (I would add here that congestion of the kidneys is here frequent).

Headache from the beginning—permanent, severe, frontal; sclera white.

These symptoms are well marked and progressive.

Breath has a peculiar mouse-like odor.

Delirium appears only when the disease is well pronounced; it is often persistent, and variable only in degree.

Pulmonary congestion is gradual and persistent, always hypostatic (the bases and dorsal surfaces of the lungs); the dyspnea is less pronounced and later in appearing, depending more upon the abdominal conditions (tympanites, etc.)

There are usually relaxation, prostration and stupor.

No jaundice.

Herpes rare.

Anemia absent, excepting in later stages.

Characteristic roseola.

Tympanites, gurgling and diarrhea appear slowly, and may become well marked.

Has a fairly characteristic course.

Urine high colored, bile absent, diazo-reaction present during the height of the process.

Blood shows no leukocytosis; eosinophiles not notably diminished; serum does not cause agglomeration of typhoid bacilli (Pfeiffer, Durham and Widal); malarial parasites and pigmented leukocytes present.

Fever disappears under quinin. (This is not always my experience. The quinin seems to modify the fever, but does not always control it).

Is an endemic disease, occurring particularly in rural districts; rarely epidemic.

Blood shows no leukocytes; eosinophiles are diminished or absent; serum causes agglomeration of typhoid bacilli; malarial parasites and pigment absent.

Fever uninfluenced by quinin.

Usually epidemic; prevailing commonly in cities.

Lastly, we cannot refrain from the consideration of yellow fever, pernicious malaria, and dengue. A case of bilious remittent fever, so called, occurring during an epidemic of yellow fever, or where this is feared because of its prevalence in the vicinity, is likely to give rise to considerable anxiety. Stubbert's table (from Hare), which we have taken the liberty to modify somewhat, may here serve to exemplify.

#### Stubbert's Table.

##### YELLOW FEVER.

Headache, bilateral, frontal and post-orbital.

Temperature and pulse divergent; temperature rarely higher than 104° F.

Congestion of face, eyes and gums early in the disease.

Albumin present in large quantities early in the disease.

Quinin has no effect on the progress of the disease.

Stage of remissions on third or fourth day.

Attacks new arrivals.

Always history of exposure to infection.

Black vomit appears on the third or fourth day.

Hematuria very rarely present.

##### PERNICIOUS MALARIA.

Headache, generally unilateral, frontal and temporal.

Temperature and pulse correlative; temperature generally 105° to 107° F.

Congestion of face, etc., never seen.

Albumin rarely present. (This is not our experience here; albumin is frequently found, but is slower in coming and less in quantity).

Quinin has a specific effect if given hypodermatically and early. (We find many exceptions to this statement).

Remission not present.

Generally history of chronic malarial infection.

No history of exposure to infection.

Black vomit appears within thirty-six hours. (We see this but rarely).

Hematuria a marked symptom.



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Liver unchanged. (This is not my experience; it is slightly enlarged and very tender).

Archinard serum test; positive.

### YELLOW FEVER.

Cephalalgia and nephralgia are characteristic; constant.

Pulse and temperature divergent.

The slowing of the pulse begins early in the disease.

Congestion of face early in the disease; no edema.

Albuminuria.

Icterus.

Black vomit.

No eruption.

Archinard serum test; positive.

Liver enlarged and tender.

Archinard serum test; negative.

### DENGUE FEVER.

Pain most severe in joints and muscles, and is paroxysmal.

Pulse and temperature correlative.

The slowing of the pulse occurs late in the disease.

Rash on the face, followed quickly by edema.

Albuminuria absent.

Icterus absent.

Black vomit absent.

Polymorphous eruption, followed by desquamation.

Archinard serum test; negative.

I have only attempted to bring before you the conditions of fever with which we are most confronted; to do otherwise would take up too much of your time. It is evident, however, that fevers exist which cannot be diagnosed by clinical means alone; and even after bringing to our aid the microscope, the chemical laboratory, and last but not least the therapeutic tests, we may still remain in doubt.

Porter Building.

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## THE CONTINUED FEVERS OF THE SOUTH—ETIOLOGY AND LABORATORY FEATURES.\*

BY WM. KRAUSS, M.D.

MEMPHIS.

Physician and Pathologist to St. Joseph's Hospital; Instructor of Pathology, Memphis Hospital Medical College; Pathologist to the Shelby County Poor and Insane Asylum.

In opening this subject, at the request of the President, I cannot but feel honored at the assignment, while feeling that we are threshing over old straw. While the essay is incomplete, yet I have endeavored to put as much in as little space as possible, there

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\* Read before the Memphis Medical Society, August 1, 1899.

being other papers to follow. It will be seen that there is little to say about what has been done, but it may be well to indicate what might be done, especially if the profession wishes to hold up its head before the scientific world. The discussions heretofore have been principally limited to the ventilations of pet beliefs without any scientific basis.

We shall first go over some familiar ground on the subject of typhoid fever and its etiology, then take up malaria, and then the consideration of the X, as we say in mathematics.

The bacillus credited with causing typhoid fever was discovered by Eberth in Koch's laboratory in 1880. Like all the colon group it is quite polymorphic, but usually about 1-3 m. in length and about 0.5-0.8 m. in diameter, with rounded ends. It may grow out into long threads, especially upon cooked potato, upon which it shows the characteristic invisible growth. It is very actively motile, aerobic, non-liquefying, and grows very actively upon a variety of media at the room temperature. It can also grow in the absence of oxygen, hence is a facultative anaerobe. It has from eight to twenty slender threads projecting from its enveloping membrane, which are known as flagella. Bouillon cultures twenty-four to forty-eight hours old are in long chains of from two to six bacilli, which gives them a gliding, swimming motion instead of the rolling, wriggling of the short forms, and adapts them well for use in the Widal test. The bacillus does not stain as easily as most bacteria, and is readily decolorized by iodine, as in Gram's method.

*Cultural Characteristics.* A full consideration of these is out of place here. We will only take up those usually relied upon for differentiation and separation, especially from allied forms. Thus, the typhoid and icteroides have the invisible potato growth, do not grow on 1:7000 formic aldehyde, do not produce indole or coagulate milk, all of which are properties differentiating from colon. The icteroides ferment glucose actively and lactose slightly; the typhoid ferments neither, and the colon both. Upon Elsner's medium the typhoid grows out in twenty-four hours in minute, whitish dots, the colon in larger, dark colonies, the yellow fever more slowly or not at all; all grow on carbolyzed gelatin, the icteroides least. The agglutination test differentiates them best, though both typhoid and yellow fever blood may agglutinate the colon bacillus, which becomes pathogenic in both diseases. The use of the medium

accredited to Hiss has been considered before this Society. Whether we use the method of Chantemnesse and Widal, of Holtz, Thoinot, Parietti, Hazen and White, Theobald Smith, Wurtz, Schild, Elsner, Stoddard-Hiss, Proskauer and Capaldi, the success of the culture depends upon the presence of the typhoid bacillus in the fecal discharges, which is frequently not the case.

*Vitality of the Bacillus.* It is very susceptible to high temperatures,  $60^{\circ}$  C. killing it in a few minutes. On the other hand, D'Arsonval has exposed it to the temperature of liquid air ( $160^{\circ}$  C. below zero) without injury.

Sternberg, in his textbook, has the following: "The typhoid bacillus retains its vitality for many months in cultures. The writer has preserved them in hermetically sealed tubes for more than a year, and has found them to develop promptly in nutrient gelatin. Dried upon a coverglass, it may grow upon a suitable medium after having been preserved for eight to ten weeks (Phuhl). When added to sterilized distilled water it may retain its vitality for more than four weeks (Bolton) forty days (Gassebat), and in sterilized sea water for ten days (DeGiaksa). Added to putrefying feces it may preserve its vitality for several months (Uffelmann), in typhoid stools for three months (Karlinski), and in earth upon which bouillon cultures had been poured, for five and a half months (Grancher and Deschamps)."

*Pathogenesis.* It does not multiply readily in lower animals, and hence the test of Koch is not applicable to it, but the injection of filtered cultures in sufficient quantity into experiment animals will kill them, showing the toxic properties of the organism. Brieger has isolated the toxin, and Pfeiffer has found the blood of patients to have an immunizing influence, but as the toxin resides in the bodies of the bacilli and does not dissolve in the filtrate, immunizing experiments are carried out only with great difficulty. The discovery accredited to Widal is perhaps as positive proof of the pathogenesis of the bacillus of Eberth as any or all of Koch's laws, which must needs fail when animals are not susceptible.

To quote again from Sternberg: "A predisposition to typhoid infection is established by various depressing agencies, such as inanition, overwork, mental worry, insanitary surroundings, etc. And there is considerable evidence in support of the supposition that exposure to offensive gases given off from ill-ventilated sewers constitutes a predisposing cause of the disease."

*Mode of Invasion.* The bacillus typhosus probably always enters the body by the alimentary canal. It has been conveyed by drinking water, milk, oysters, ice, food infected by flies from contaminated material, etc. Direct invasion through the rectum has been noted from infected clothing, and by contamination from handling the discharges of typhoid patients.

Upon the entrance of the bacillus typhosus into the tissues it at once attacks the lymphoid structures, including the spleen, in which it multiplies, and by its toxin produces both prodromes and subsequent symptoms. This being the case, the presence of some bacilli free in the intestinal tube is not the alpha and omega of typhoid fever. Babes and Sanarelli have shown that it is a disease of mixed infection, the colon and pyogenic cocci being in predominance.

The severity of an attack depends upon the number and virulence of the bacilli, the susceptibility of the patient and his surroundings, and not upon the bacilli that may be free in the bowel.

This brings us to the question of intestinal antiseptics. It may be stated that the weight of scientific authority is to the effect that this has no existence in fact. I can corroborate this from the fact that I have cultivated the typhoid and colon bacilli from the feces of patients who had taken guaiacol, salol, thymol, zinc sulphocarbonate, and other antiseptics. Furthermore, these organisms can be grown upon media containing antiseptic substances in far greater strength than would be safe to give, even if there were not thirty-one feet of gut to disinfect.

*Diagnosis.* The serum test of typhoid fever is now a well-established procedure, the causes of failure being now pretty well eliminated. In this connection Anders and McFarland, in the *Phila. Med. Jour.*, have summed up the conditions, precautions, etc. From their article I abstract the following: The cultures should be young, so as to contain the long, motile forms. A twenty-four hour bouillon culture taken from a three weeks culture upon agar is best; if too virulent, a pseudo-reaction may result from either normal or typhoid blood; the bouillon must be slightly but distinctly alkaline; if acid, the agglutination may not take place; serum should be preferred, as dried blood cannot be accurately estimated. The conditions are summarized as follows: "The authors find that the Grünbaum-Widal reaction, which, when properly studied, is accurate in nearly 97 per cent. of cases, consists in a loss of mor-

tality and a peculiar clustering of the bacilli in groups, depending upon the fact that a moderately virulent, actively motile, twenty-four hours old culture, grown upon a slightly alkaline culture medium, is acted upon by a solution of blood or serum equaling about one part of the blood or serum to ten parts of water for a period not exceeding one-fourth to one hour, or in a dilution of 1:50 one to two hours."

Abbott says he has found the test to be accurate in 97 per cent. of 10,000 cases tested by him. Stengel, Osler, Wyatt Johnston, Biggs, and others, report similar results.

McFarland recommends that blood be drawn into capillary glass tubes of known capacity, and these crushed in a small vessel with a measured quantity of distilled water. Where the fluid is used in a short time, I have used the following procedure: A puncture is made and the blood drawn into the pipet for white cells of a Thoma-Zeiss counter to the 1:0 mark. Water is then drawn up to fill the bulb, which makes a 1:10 dilution, which can be blown into a sterilized homeopathic vial until used; this can be used as a 1:10 or further diluted by taking so many loopfuls and mixing with water.

It is to be remembered that the reaction may appear late and may be transient, so that several tests may be necessary. This may not serve for early diagnosis, but it is worth something to the patient to know that he has had typhoid fever, and we owe it to him to give him a correct diagnosis. To judge from the divergence of opinions heard, the clinical diagnosis is in doubt in half of the cases, while the Grünbaum-Widal test should be positive in 97 per cent. A previous attack should be inquired into.

*Malaria.* It is now generally accepted that there are three distinct varieties of malarial organisms, viz.: the tertian, the quartan, the estivo-autumnal. The first of these is characterized by requiring forty-eight hours for the completion of its life cycle; it gives rise to intermittent paroxysms lasting from ten to eleven hours, which recur every other day. The parasite is more actively motile than the quartan, the pigment granules are very much finer, and it breaks up in 16 to 20 segments. The blood cells are larger and paler than in the other forms of malaria.

The quartan plasmodium requires seventy-two hours to complete its cycle, is smaller, with larger and more tardily-moving pigment granules, is more distinct in the corpuscle, divides into from

8 to 10 segments, and the blood corpuscles are smaller and darker than normal (brassy). Infection by multiple groups of either of these will give rise to quotidian, double quotidian, or double tertian paroxysm.

The estivo-autumnal hematozoon gives rise to most of the irregular malarial fevers. It appears to have no well-defined cycle, but this is largely due to the fact that it does not mature in distinct groups, generally speaking; there is, however, some evidence that it matures in the space of forty-eight hours. Most of the tertian fevers seen by me at St. Joseph's Hospital during the last month were infections by the ring-shaped forms of this parasite. This plasmodium may develop into the extra-cellular ovoid and crescent forms.

I have frequently seen a small extra-cellular hyaline or pigmented form, which is actively motile, though I have not been able to make out any flagella. Some of my preparations seem to show a fringe or rim of substance taking the eosin stain around them, indicating that they are not really extra-cellular. They are seen in cases having a general feeling of lassitude with a slight evening temperature. Many such cases had been referred to me for diagnosis for suspected tuberculosis.

With reference to the different opinions on the subject of the varieties of malarial organisms, according to Thayer and Hewetson, Barbacci makes the observation that the year 1885 marked the beginning of two schools: The one, and strange to say the one headed by Laveran, although not generally accepted by other authorities, believes that the malarial parasite is a single polymorphous organism, and that there is a constant relation between the different forms and the various types of fever. The other school, headed by Golgi, thinks that the different forms are different species, and each has its own clinical manifestations. Laveran teaches that this parasite is to be seen in considerable variety of forms, which one can resolve into the four following types: (1) spheric bodies; (2) flagellated bodies; (3) crescentic bodies; (4) segmenting forms or rosettes. He says the crescents are encysted forms, developing from the spheric bodies and showing an absolute resistance to quinin; that they can change into round, ovoid, and flagellate forms, and that there is no relation between the form and the variety of malarial paroxysm. But Golgi determined beyond ques-

tion the close relation between the form and the clinical manifestation of paludism. He also pointed out that the beginning of every malarial attack corresponds to the ripening of a generation of parasites, and that the severity depends upon the number of plasmodia present, that segmentation begins eight to ten hours before the paroxysm and continues during its first hours, all of which was confirmed by Osler in the same year. Golgi also pointed out the difference between tertian and quartan forms. Marchiafava and Celli showed that Golgi was dealing with fever running a typical course; the fevers were never pernicious, and yielded often without, and always with, quinin, whilst the Roman fever pursued an atypical course, and that these fevers were more common in the Campagna in the summer and fall, did not yield readily to any kind of treatment and had a tendency toward becoming malignant, and pointed out other differences. Thayer and Hewetson, confirming both Golgi as to the intermittents and Marchiafava and Celli as to the estivo-autumnal forms, have given us what is now generally accepted in this country. The truth is, as has been said on this floor, by Dr. G. B. Young two years ago, there is much to be learned about the classification of all the forms now grouped under the one name of estivo-autumnal parasite.

Cultivation experiments of the malarial organism, outside of some living body, be it man, animal, bird, or mosquito, has not been yet accomplished.

The best time to find the plasmodia is during a rising temperature, much of the literature to the contrary notwithstanding. The best pictures are obtained by examining fresh spreads, as the motility and other characters can then be made out. To make good stained specimens, the still wet spread on a cover glass is dropped into a watch glass containing a mixture of absolute alcohol, saturated with eosin, 25 c. c.; pure ether, 25 c. c.; corrosive sublimate (20 per cent.) in absolute alcohol, 5 drops. The cover glass is allowed to remain from three to five minutes, removed with forceps and washed in water, stained in a saturated watery solution of methylen blue for one minute, again washed in water, dehydrated in absolute alcohol, cleared in xylol, and mounted in Canada balsam (Gulland).

It is known that the chill corresponds to the time of invasion of the blood cells by the new group of parasites; the nutritive

stage is the stage of fever, and after the sweat the plasmodia disappear from the peripheral circulation. About three hours before the next expected chill the mature organism begins to crinkle at the edges, the pigment collects in the center, and the rosette stage is reached. By an explosive action the cell is ruptured, and the segments are then free in the plasma, ready to invade a new lot of cells. If now, at the daisy stage, quinin is given, it does not prevent the invasion, nor the impending chill, but will prevent the next succeeding paroxysm. This is explained on the ground that they are not then in a vulnerable stage but the quinin will remain in the circulation until the nutritive stage is reached. A single large dose, then, on a rising fever, will definitely break up an intermittent attack from a single group of tertian or quartan organisms. Some undeveloped embryos may fail to enter any red cells at the time and thus escape. At the end of seven or fourteen days they may have incubated enough to again rise to a fever—the well-known seven-day chills. It seems that they must become numerous enough to produce symptoms, but it is not plain why this should take seven days or a multiple of this.

A prominent practitioner in the Delta, anent the supposed definite period of incubation of malaria and the probable inoculation by the mosquito, finds his own observations at variance with this. For instance, a man may expose himself at night, eat indigestible food or fresh fruit, especially watermelon, and in twenty-four hours or less will develop a chill and go into an attack of intermittent fever. How is this compatible with the inoculation theory or the idea of a prolonged period of incubation?

As to whether malaria is air borne or water borne, the discussion and abduction of evidence would carry us too far; ample evidence is at hand to accept both these views. Bignami has positively produced malaria in a subject years away from a malarial district by having him bitten by imported mosquitoes. The period of incubation was exactly seven days. We have malaria here in Memphis, which certainly cannot be accounted for by the water theory. On the other hand, an English Army Surgeon in India noticed, that of two regiments, exactly stationed alike, the one getting its water "up hill" did not suffer from a single case of malaria, while the other was very much afflicted with it.

We come now to the possible coëxistence of typhoid and mala-



ria. We all know of cases having had both infections at the same time, as evidenced by laboratory tests. In all such cases the double infection is recognized by the temperature curve. As to any hybrid form, this is out of the question; an animal organism cannot fuse with a vegetable one. There is a variety of fever, however, which is probably the cause of all the dissension upon this subject of protracted fevers. Some of the essential differential points of this "X" fever are: (1) It does not yield to any amount of quinin; (2) it has no typic temperature range; (3) it has no prodromes; (4) it lacks the bowel lesions; (5) there is no dryness of the skin and the tongue; (6) the sensorium is clear; (7) the appetite remains good; (8) the Widal reaction is absent; (9) there is leukocytosis; (10) there is no eruption; (11) they never die of an attack; (12) they are not immunized by it. The only two cases of which I have been able to obtain blood during the height of the attack did not contain plasmodia and failed to give the Widal reaction; they showed a marked leukocytosis. Blood examinations of both typhoid and malaria usually show a diminution of leukocytes, provided no quinin has been given, and this is looked upon as diagnostic. Dr. Witherspoon, of Nashville, in a private conversation, told me that he believed this to be the keynote to the whole matter. It is highly probable that this fever is neither typhoid nor malaria, nor has it anything in common with either of these fevers. It is probably colon infection or a thermic fever, allied to heat prostration. The only cases I have been able to follow myself clinically were either typhoid or malaria, or a double infection, and were not accompanied with leukocytosis. This matter must be settled by the medical men of the South. It is humiliating to have to confess ignorance upon a subject when the material is at hand.

Some authorities make the assertion that no fever refractory to quinin is malarial; others go further and say that any fever not yielding to quinin is typhoid. This statement contains two palpable errors: (1) a malaria may be refractory to any amount of quinin, as all of us can testify; (2) even if not malaria it is not necessarily typhoid.

I believe the etiology of the protracted fevers of the South can be summed up as follows: (1) Some are purely malarial, and quinin, in the proper dose and at the proper time, will influence the majority of these cases; (2) some are typhoid; (3) malaria may compli-

cate typhoid during part of the time ; (4) some are entirely different fevers, and these we must investigate.

This is why the Grünbaum-Widal test is of greater interest to us than perhaps to the physicians of any other section. It is to be hoped that these cases will not be disposed of, as heretofore, by the rule of thumb. If only 50 per cent. of the cases give a Widal reaction and only few of the remainder are positively malarial, it is certain that we are "up against" another very different fever.

210-14 Randolph Building.

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## NATURE AND ART IN THE CURE OF DISEASE.\*

BY JOHN M. FARRINGTON, M.D.

BINGHAMTON, N. Y.

Sir John Forbes, one of the most distinguished physicians of England, after having been actively engaged in the practice of medicine for fifty years, published, in 1857, a small volume under the title of my paper, giving his views on this important subject. His practice began nearly one hundred years ago, and this essay of his was published forty-two years ago—the date of my graduation in medicine. I was advised to secure and read his work, which I did the following year, 1858.

To a young practitioner just starting out in the practice of our profession, the sage and fatherly advice of Dr. Forbes is as valuable today as it was when he penned it more than half a century ago, for his manuscript was written several years before publication.

I do not propose to quote from Dr. Forbes' excellent work to any great extent, but will confine my quotations to but a few paragraphs. He writes as follows:

"In a very early stage of my medical experience I became impressed with the conviction that the most fruitful source of false views, both in pathology and practice, prevalent in the profession, originated in ignorance of the natural history of disease; and all of my subsequent observation, through a long series of years, has only tended to strengthen the impression. \* \* \* Such has ever been the want of trust in nature and the overtrust in art prevalent among the members of the medical profession, that the

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\* Read before Third District Branch of the New York State Medical Association.

field of natural observation has been to a great extent hidden from them; hidden either actually from their eyes, or virtually from their apprehension. The constant interference of art, in the form of medical treatment, with the normal processes of disease, has not only had the frequent effect of disturbing them in reality, but, even when it failed to do so, has created the belief that *it did so*, leading, in either case, to an inference equally wrong—the false picture in the one instance, being supposed to be true, and the true picture in the other, being supposed to be false. With this impression in their minds, it was scarcely possible for practitioners not to form a false estimate alike of the power of nature and of the power of art, in modifying and curing diseases, underrating the former in the same proportion as they exaggerated the latter. And the consequence has been that diseases have been treated mainly as if nature had little or nothing to do in their case and art almost everything. A principle so false, adopted as the ground action, could not fail to be the source of the gravest doctrinal errors, with practical results of the most deplorable character.”

These statements of Sir John Forbes present not only the true condition of things at that time, but also to a greater or less extent are honest portrayals of the present state of medical practice. It is true the world moves, and many delusions and errors of the past have been removed or corrected by enlightened observation and experience, yet even today the potential value of medicaments is in many instances largely overrated, and credit is given to the action of drugs when the wonderful curative power of nature really restored the victim of disease to health.

Prof. E. R. Peaslee, in an address to a graduating class in the New York Medical College, said: “Gentlemen, sometimes you will have charge of a very important case to which you have devoted the closest attention day and night, without regard to your own personal comfort or convenience. You have thought no personal sacrifice too great to be made by you to give your patient every possible chance for recovery. You have done perhaps all that was possible for human aid to accomplish. And no matter what the result, you felt that you were entitled, not only to remunerative compensation for your untiring services, but over and beyond all financial returns that you should receive what dollars and cents cannot measure—the lasting gratitude of all interested

in the patient. But alas, instead of these just returns, you may be visited with condemnation instead of commendation, and those who should have been your devoted and grateful friends prove to be your hostile critics and implacable enemies. It will go hard, young gentlemen, thus to receive censure instead of blessings upon your devoted head. But," said Dr. Peaslee, "never mind, in the long run it will balance up all right, for sometimes it will happen that you will receive great credit when you did not deserve it."

I recall an incident related by a physician in which he stated that the highest praise he ever received was when called to a case hurriedly that seemed desperate, and he felt that he must act promptly; though he knew not what to do, he took from his pocket a vial, and turning his back to the crowd that surrounded the patient, pretended to drop some medicine into a teaspoon, mixed it with water and gave it at once to the patient, who immediately revived, and the reputation of the lucky physician was at once established.

It sometimes takes but a trifling incident to establish or destroy a physician's reputation. No doubt some of you remember the incident told by a doctor who sought to establish a practice upon an island where he was unfamiliar with the productions of the soil or the habits of the natives. One day he was out walking when he noticed that a young woman in advance of him was frequently expectorating mouthfuls of blood. He followed her to her home, and in the line of what he regarded his duty told the girl's mother that her daughter was in a serious condition, and would not long survive. Knowing him to be a physician, great alarm seized upon the patient and her friends, and despite all the care given her the girl died. The doctor's reputation seemed remarkably established, and his fame spread far and wide, for the fact that a girl in good, robust health should be recognized by a skilled physician as near her death, showed wonderful powers of diagnosis and prognosis. All would have been well had not the doctor very innocently answered the inquiry made him subsequently as to how he knew the girl was going to die. "Why," said he, "I saw her spit blood enough to insure a fatal termination from internal hemorrhage." "But doctor," said the questioner, "don't you know that all the natives chew a nut that colors the saliva red?" Then it transpired that the wise doctor jumped too soon at his conclusions, and that

his opinion had frightened the girl to death. The result was, that he had to flee for his life, else the natives would have lynched him. I presume thereafter he was more guarded in giving a prognosis without a fuller investigation of the case.

While digressing thus from my subject, I wish to state another instance of which I might give many, of the influence of the mind over the bodily condition. Prof. Fordyce Barker told our medical class when I was a student that he was called in haste to see a man reported as dying from hemorrhage of the lungs. He found him in bed, pallid and depressed, the members of his family gathered about him. Dr. Barker secured the history of the case as follows: The man was a down-town merchant; that morning he had gone to his place of business feeling as well as usual, but after visiting a neighboring grocery he found that he was spitting blood. A cab was called and he was conveyed home and Dr. Barker was sent for. Careful investigation finally showed that when the man was in the grocery he ate some prunes and the so-called blood he expectorated was simply prune juice. After this fact was established the man gave up the idea of dying that day, and went back to his place of business.

Antedating this work of Dr. Forbes was an American publication by Dr. Jacob Bigelow, of Boston, in November, 1854, the leading article being an address delivered by Dr. Bigelow before the Massachusetts Medical Society, in May, 1835 (sixty-four years ago), on "Self-Limited Diseases," though the title of Dr. Bigelow's book is "Nature in Disease." Dr. Bigelow, among the many thoughtful and wise comments on this interesting subject, writes as follows: "To discover truth in science is often extremely difficult; in no science is it more so than in medicine. Independently of the common defects of medical evidence, our self-interest, our self-esteem and sometimes even our feelings of humanity may be arrayed against the truth. It is difficult to view the operations of nature, divested of the interference of art, so much do our habits and partialities incline us to neglect the former and to exaggerate the importance of the latter. The mass of medical testimony is always on the side of art. Medical books are prompt to point out the cure of diseases. Medical journals are filled with the crude productions of aspirants to the cure of diseases. The young student goes forth into the world believing that if he does not cure diseases it is his own fault."

Have not we all been there? I often think of the experience of Dr. Sangrado, in the novel *Gil Blas*, whose exclusive treatment was giving his patients large draughts of hot water, and when one of his cases died he knew that it was because he did not give enough of the hot water, and his next victim was compelled to take more. And I am inclined to the opinion that the representatives of Dr. Sangrado are not all dead, but some of them flourish even in our time. But Dr. Bigelow adds, that "when a score or two of years have passed over the head of this young practitioner he will come at length to the conviction that some diseases are controlled by nature alone. He will often pause at the end of a long and anxious attendance and ask himself how far the result of the case is different from what it would have been under less officious treatment than that which he had pursued, how many of the accumulated remedies which have supplanted each other in the patient's chamber have actually been instrumental in doing him any good. He will also ask himself whether, in the course of his life, he has not had occasion to change his opinion, perhaps more than once, in regard to the management of the disease in question, and whether he does not even now feel the want of additional light. Medicine has been rightly called a conjectural art, because in many of its deductions, and especially in those that relate to the cure of disease, positive evidence is denied us. We are seldom justified in concluding that our remedies have prompted the cure of a disease until we know that cases exactly similar in time, place and circumstances have failed to do equally well under the omission of those remedies; and such cases, moreover, must exist in sufficient numbers to justify the admission of a general law on their basis. Nothing can be more illogical than to draw our general conclusions, as we are sometimes too apt to do, from the results of isolated and remarkable cases, for such cases may be found in support of any extravagance in medicine, and if there is any point in which the vulgar differ from the judicious part of the profession it is in drawing premature and sweeping conclusions from scanty premises of this kind. Moreover, it is in many cases not less illogical to attribute the removal of diseases, or even of their troublesome symptoms, to the means which have been most recently employed. It is a common error to infer that things which are consecutive in the order of time have necessarily the relation of cause and effect. It often happens that

the last remedy used bears off the credit of having removed an obstruction, or cured a disease, whereas in fact it may have been owing to the first remedy employed, or to the joint effect of all the remedies, or to the act of nature uninfluenced by any of the remedies."

In illustration of this last statement quoted from Dr. Bigelow, how often does the last physician called to take charge of a case, or as a consultant, receive commendation for a favorable change in the patient, when perhaps he had nothing to do with the result, and that his predecessor in the treatment of the disease should have had all of the credit, whereas he oftentimes receives only censure. Doubtless every one present here today has witnessed or experienced such a state of affairs. I could furnish a vivid picture in illustration from personal experience in my early years of practice, but I will not take the time to present it to you.

In looking for evidence of the curative powers of nature, we may refer first to the diseases of the lower animals where they have not been subjected to any medicinal treatment. Homeopathy, when practiced honestly, in accordance with infinitesimal system, gives us examples in abundance of cases left really to unaided nature and the efficient power of our good mother. Nature carries so many cases of illness to a successful recovery that the physician with the *do nothing* system of faith pellets gets the credit, and that is why those of that sect are frequently such powerful rivals to our *do something* system of practice. We have profited by these illustrations, and have learned to value more highly the curative powers of nature. After passing in review the various sources for observation and for information relative to the influence of nature and art in the cure of disease, Sir John Forbes makes this pronounced and positive statement:

"The one great result obtained from the study of these various authorities is this: that the power of nature to cure diseases is infinitely greater than is generally believed by the great body of medical practitioners and by the public generally. So great, indeed, is this power, and so universally operative, that it is a simple statement of the facts to say, that of all diseases that are curable and cured, the vast majority are cured by nature independently of art, and of the number of diseases that, according to our present mode of viewing things, may be fairly said to be curable by art, the far

larger proportion may be justly set down as cured by nature and art conjointly. The number of diseases cured entirely by art (I of course omit in all these statements surgical art), and in spite of nature—in other words, the number of cases that recover and would have died had art not interfered, is extremely small.”

This may seem to us a most sweeping statement, but coming as it does from such a careful and able observer, it deserves our most serious and respectful consideration. When I chose the title of my paper I did not realize the broad field that it covers, and that the limits required for presentation at this meeting would only permit me to present an outline and some general views upon this important and practical subject. I have not the time to bring before you the long list of self-limited diseases, nor prominently to present those in which the duty of the physician is comprised in a careful observation of the operations of nature and by palliatives, or such agents as shall best aid nature in removing obstructions to the functions of elimination, assist the natural processes in securing the recovery of the patient.

Prominently, at this time, the outdoor treatment of consumptives is superseding all other forms of treatment for this most extensive cause of the mortality of our race. Thus the victim of tuberculosis is given the full benefit of nature's pure air and the vivifying influence of the sun's rays. I recall some verses learned in my childhood that ran somewhat like this :

Are you fond of fevers, of headache and chills?  
Then shut yourself up like a monk in his cave  
Where all is gloomy and sad ;  
But would you avoid the dark gloom of disease ?  
Then haste to the fresh open air,  
Where your spirits may kindly be fanned by its breeze,  
'Twill make you well, happy and fair.  
Throw open the window and fasten it there,  
Fling the curtain aside and the blind,  
And give a free entrance to Heaven's pure air,  
'Tis the light, life and joy of mankind.

I was especially interested in a statement made by Dr. J. F. Clarke, Surgeon 49th Pennsylvania Volunteers, in a letter to the *Philadelphia Medical Journal* of October 29, 1898, entitled, “An Army Surgeon's Experience with Typhoid Fever,” at Jacksonville, Fla. Dr. Clarke says :



"In the division hospital, filled with typhoid fever patients, deaths became frequent. The mortality was not extreme, for tents make the best possible typhoid hospitals. It was surprising to those of us on the hospital staff who had had extensive hospital experience in large cities to see how well desperate cases of this fever progressed in the open tents, despite the wind and rain and necessary crowding, and for a long time a very limited supply of medicine and hospital facilities. The wooden pavilions later built for division hospitals are certainly going to prove a failure as compared with tents for the treatment of typhoid fever."

This opinion of Dr. Clarke accords fully with my own army experience, which was to me very impressive and conclusive. On the first day of November, 1862, the 137th Regiment of New York Volunteers, of which I was Surgeon, encamped on Bolivar Heights, Va. We were a new regiment, having been organized and mustered into the U. S. service on the 25th day of September, at Binghamton, N. Y., and were sent to Washington, D. C., on the 27th of that month. We were moved from Washington to Pleasant Valley, Md., and, as before stated, were marched through Harper's Ferry and established our camp on Bolivar Heights November 1st. We were 1000 strong, and a robust lot of men. On the 10th of December, just forty days after camping at Bolivar, we broke camp, marched down Loudon Valley, and never again saw our pestilential camp at Bolivar Heights. There were but 650 of us able to march, and hardly a well man in the whole command. We were blighted by a severe epidemic of typhoid fever soon after we arrived at Bolivar Heights, and new cases of sickness, deaths, and transportation of cases to general hospital occurred almost every day. Our camp site had been used by the Confederates or Union troops alternately from the beginning of the civil war, and the soil was evidently saturated with the germs of typhoid fever. More than half of the cases sent to general hospital died, and there were several deaths in the camp. On the march the health of the regiment rapidly improved, and though in subsequent camps the disease reappeared, we never suffered as badly afterward as we did at Bolivar Heights.

And now to show a marked contrast. On the 25th of January, 1863, we encamped on a hillside near Aquia Creek, Va., and on the west bank of the Potomac river. While here we had six men

stricken with typhoid fever. There was a light snow upon the ground, the wind was bleak and cold, and the only protection afforded these sick men was by the low shelter tents, as they lay upon the ground with rubber and army blankets under and over them. The only mode of heating was by fire built outside so that the heat was reflected in the open end of the tent. I made every effort to get these men sent to general hospital at Washington, but without avail. I was directed to care for them the best I could as, for some reason unknown to me, none could be sent at that time to the general hospitals. Presumably they were all filled. My sympathies were greatly stirred over these men, apparently nigh unto death in such exposed quarters, but it proved to be their salvation, as every one of them made a good recovery, when, as before stated, over 50 per cent. of those sent to general hospitals died. After that experience and observation, I said then, and I now strongly reaffirm the statement today, that I would prefer to take my chances of recovery from typhoid fever on a bleak hillside in an open field rather than in the best constructed hospitals of our cities. The poison in the exhalations is diluted and wafted away, and the source of infection from the other cases is avoided.

Dr. Frank Billings, of Chicago, in an address delivered at the opening of the Rush Medical College, September 27, 1898, very wisely stated that "the limitations of medicine in the management of acute infectious and contagious diseases has always been great. The success in the prevention of these diseases has been greater than the healing of those already sick. The discovery of bacteria and the relation they bear to the infectious and contagious diseases has afforded a still greater means of prophylaxis, and made a more rational treatment possible. We have looked upon these diseases as self-limited in duration, self-limited to accord with the life cycle of the invading germ. The *materia medica* does not furnish us a drug which will cut short the disease. The drug strong enough to kill the invading germ is equally deadly to the host. We modify the course of the disease only. We attempt to carry the patient through the illness by hygienic measures, simple food, bathing to modify fever, and by measures to support the patient until the invading army shall disappear. Specific medication is of no value except in the malarial diseases and in syphilis. The limitation of medicine is pronounced."

I apparently digress again from the subject of my paper to refer to a bright article from the pen of Mary Henry Rossiter, entitled, "The Stomach as a Factor in Evolution," in which she pays this compliment to unaided nature: "From the standpoint of hygienic philosophy, it is far more reasonable to conclude that man has descended rather than risen from his first estate. Dieticians have proved that from the beginning of civilization there has been a steady departure from the use of natural foods. Primitive man lived upon simple grains, raw fruits and nuts as they grew on bush and tree. He did not know how to make mince pie and plum pudding or the later *pâte de foie gras* and chafing dish dainties. Primitive man was strong, full of vital power, commanding in stature, and lived to a good old age, untroubled by tuberculosis, appendicitis, nervous prostration, toothache, headache, locomotor ataxia, and a thousand other ills which shorten his life today. Every indication goes to show that while the race has been gradually advancing in knowledge and experience, it has as surely been degenerating physically. All through the ages the progress of the human mind has been checked by the weakness and disease of the body."

This is sound reasoning, and we cannot but assent to its truth and importance. This knowledge is of great value to us, and aids us materially in giving advice to our patients. The better the physician understands the natural laws in health and disease, the better will he be qualified to import wise counsel to those who seek his aid. But my paper has reached its proper limits.

In conclusion, permit me to assure you, my brethren and co-workers in the practice of our noble and beloved profession, that it has not been my purpose to at all minify the study and practice of medicine. Far from it, for to the science and art of medicine we are indebted beyond all possible estimation for the grand sum total of our knowledge of this wonderfully-constructed body which we inhabit, with its most elaborate system of functions, whose contemplation fills the mind of even the most profound student with wonder, love and praise. There is a large field yet open to scientific investigation, notwithstanding the wondrous discoveries during the last half century made by medical scientists. And the more and more that these investigations bring to light valuable information, more and more will we be led to worship at the shrine

of the greatest aid to us in our labors and anxieties—the wonderful curative powers of nature. I have, in this brief paper, chiefly striven to show that we are oftentimes too apt to exalt our art above its proper position as related to the health-restoring powers of the human system. The most accomplished surgeon cannot make a wound heal; he can only approximate the parts so that nature may best or soonest secure complete and perfect union. We must be modest in our assumptions relative to the *cure* of disease, and be content with the honest statement that we may have aided nature in the recovery of the patient.

11 Jay street.

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## TREATMENT OF POST-PARTUM HEMORRHAGE.\*

BY ALFRED MOORE, M.D.

MEMPHIS.

Probably there is no subject in the range of the practice of medicine that is more of a bugbear than post-partal flooding, and probably no other subject has been more freely discussed. One need not offer an apology for bringing such subjects before such an enlightened body; for often in the discussions that follow by those of large experience many new points are gained that are of inestimable value.

Hemorrhage may occur during the third stage of labor, or in the first twenty-four hours of the puerperium, from relaxation of the uterine muscle from numerous causes, from injuries along the birth canal, from ruptured vessels, tumors, malignant growths, the products of inflammation, inversions, placental adhesions, placenta previa, and the retention of placenta and membranes. These last are also very frequent causes of secondary hemorrhage; most important are deficient uterine contractions or uterine inertia.

Etymologically the term post-partum hemorrhage applies to a hemorrhage arising at any time after the birth of the child, and from whatever cause. The term has, however, in its technical sense, come to be restricted to hemorrhage from the uterine cavity, occurring during the first few hours after the child is delivered; in the great majority of instances it takes place before or immediately after the placenta is expelled.

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\* Read before the Memphis Medical Society, August 1, 1899.

## 142 TREATMENT OF POST-PARTUM HEMORRHAGE.

Fortunately for women, severe hemorrhage is not of frequent occurrence; and as the conduct of labor and the management of flooding are better understood, that dreaded accident will become still less frequent and less dangerous.

Spiegelberg has made the statement that almost without exception the physician is to blame for post-partum flooding. This may be too severe a reprimand, but the fact remains that severe hemorrhage seldom occurs with the careful and experienced obstetrician. Often with delivery of the placenta comes a gush of blood, which is quickly followed by complete contraction and retraction of the womb, and there is the absence of the characteristic symptoms of blood loss; this should not be classed as a hemorrhage at all. The writer well remembers a case that occurred two and one-half years ago, which was attended by Dr. Ellett and himself. The uterine contractions were so vigorous that the placenta was driven out with great force, and blood was spattered from my head to my feet; the uterus remained contracted, and the pulse was full and slow. There was evidently no uterine inertia in this case. On the other hand, the same quantity of blood loss might have affected one who was not so vigorous quite differently.

Playfair considers post-partum hemorrhage, both mild or otherwise, the commonest of accidents, but the records of Guy's Hospital only show one severe case out of 2040 labors, and St. Thomas' Hospital one out of 2172 labors, while Veit could only collect five fatal cases from 47,765 labors. These statistics are from obstetricians of large experience, and are probably better results than can be obtained by the general practitioner.

In examining the records of the board of health of this city from January, 1883, to May, 1899, the writer could only find two cases where post-partum hemorrhage was the cause of death. Other deaths might have occurred, but they were not reported as such. This was the rarest cause of death, the puerperal infection trio (puerperal fever, puerperal peritonitis, and puerperal septicemia) being the commonest.

To exhaust this subject would consume more time than this society would allow, and I will now proceed to the treatment.

Prophylaxis is of first importance in the proper conduct of the third stage of labor. If the labor and pregnancy throughout are properly managed, grave post-partum hemorrhage due to its prin-

cial cause will be exceedingly rare. Any tendency toward abnormal relaxation of the uterus, and any increase in the pulse rate, should receive your careful attention. Gentle manipulation of the womb through the abdominal wall and the administration of a dose of ergot will generally suffice. In no case, whether there be any indications or not of hemorrhage, should the fundus of the womb be neglected. An intelligent hand on the fundus can accomplish a great deal of good. If the hemorrhage continue, more active measures should be undertaken—the womb should be kneaded and compressed, and the hand that is free passed into the womb and the contents, if there be any, evacuated. With one hand grasping the fundus and the other in the uterus, you can induce the uterus to contract. A douche of hot sterilized water would also be of great service at the same time. If the firm kneading of the fundus from without and the irritation of the hand and hot water within the womb do not cause it to contract, there need be no time lost by resorting to the legion of remedies or methods which have been used at some time or other, but gauze should be your main reliance, and the uterus packed. This plan of managing post-partum hemorrhage is reliable, and can do no harm when you are prepared to conduct a labor case aseptically. The introduction of an aseptic hand into the uterus for the purpose of removing clots and placenta is not accompanied with any more risk than is the introduction of the hand into the abdominal cavity in a laparotomy.

Many other things that are recommended are of service in causing the womb to contract, others have little or no effect, and still others are positively harmful.

The average medical man, who comes fresh from a college, generally has been drilled in the use of all the remedies that he should use in case that dreadful calamity occurs, and the chances are that when he meets with a case he will decide to use the things that are most inconvenient to get.

The anemia that follows hemorrhage must receive attention and the patient will necessarily be confined to the recumbent position for a longer time. Normal salt solution is a most efficient remedy, and must not be neglected; it is most conveniently administered per rectum. Auto-transfusion may also be tried and is of service. The administration of tonics and food, with an occasional dose of ergot, will follow.

## 144 TREATMENT OF POST-PARTUM HEMORRHAGE.

The treatment of anemia will often be as troublesome to manage as the post-partum hemorrhage.

Probably the latest treatment for hemorrhage from the surface of the body and also from inoperable cancer of the womb is the use of a 10 per cent. solution of dry gelatin in distilled water, to which is added 2 per cent. of chlorid of calcium. Whether this will be of service in the treatment of post-partum flooding remains for future investigators to determine, as there has been no case treated by it to the writer's knowledge. At no time should we neglect an opportunity of assisting a woman safely through her childbirth, and in the case where the woman has had previous flooding spells or is debilitated from disease,  $\frac{1}{30}$  gr. of strychnia administered three times a day for several months before labor has marked benefit.

Forceps timely applied or chloroform properly administered before a woman becomes exhausted from a long, tedious labor will prevent much trouble and save the patient a great deal of suffering.

The writer has purposely omitted many remedies in the discussion, and wishes to call attention in closing to the harmful effects of the iron solutions, of vinegar, and of ice, which have been so extensively used. The iron preparations will control the bleeding, but the remedy in this case is worse than the disease. The womb is left with a quantity of coagula and sloughs, which can only lead to infection or embolism. This remedy has of late been condemned by the highest authorities. Vinegar has been extensively used but is not sterile, and it is a question whether the risk we run of infecting our patient is justifiable. Ice has also been used quite extensively, but we know that germs can also live in ice, and under favorable conditions will be a source of infection.

Conduct your labors aseptically and have a clear idea of just how you are going to manage a case of hemorrhage if it should occur, and have the remedies that are most efficient and convenient at your command.

Randolph Building.

## CORRESPONDENCE.

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MEMPHIS, TENN., August 10, 1899.

*Editors Memphis Lancet:*

GENTLEMEN—I have just read with much interest Dr. M. Goltman's article in the MEMPHIS LANCET on the "Communicability of Cerebro-Spinal Meningitis."

I think if the doctor would lay aside all textbooks and forget the teaching of all authorities on this disease, and make a clinical study of the etiology of the cases which he saw during the last epidemic of '98-'99, he could not find anything to bear out the argument that cerebro-spinal meningitis is contagious or communicable in any way. I saw many cases during the fall and winter of '98-'99, and I saw nothing to make me believe the disease was communicable in any degree.

My experience with the disease during the last epidemic clearly demonstrated to me that malnutrition or want of proper food had much to do with the causation of the last epidemic. It will be proper to state here that I believe the atmospheric and barometric conditions have something to do with the cause of the disease, either directly or indirectly. During the fall and winter of '98-'99 I was doing the practice for several large cotton plantations in the swamp of the Mississippi river in Phillips county, Ark. It rained there most of the time during the cotton-picking season, and the negroes could not make money enough to buy anything to eat except salt meat and bread. Many of the negroes had cerebro-spinal meningitis, while I never saw a single case among the whites. There were no white laborers there, the white population being composed of planters, merchants and plantation managers, who, as a rule, had plenty to eat. Those who did not have fresh vegetables and fruits to eat always had plenty of canned goods of every description.

Yours, etc.,

JAS. L. BARTON.

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[Dr. Barton no doubt believes that starvation and vitiated bodily conditions generally are predisposing factors in the causation of cerebro-spinal meningitis, although he does not say so, and that



the diplococcus intracellularis meningitides is the exciting factor. Regarding the casting aside of textbooks and authorities on this subject and studying the etiology of the disease from the clinical standpoint, as Dr. Barton would have us do, it is self-evident from the text of the editorial in question that for once we have had the temerity to do as he directs, as the following extract will show:

“And now, when we admit that the evidence against contagion is far greater than the evidence for it, we cannot be accused of any prejudice pro or con.”

We are not very familiar with the plantation life of the negro, but if it is anything like the hiving existence they enjoy in the city of Memphis, Dr. Barton produces very good evidence of the contagiousness of the disease when he argues that no cases of meningitis occurred among the whites, who were chiefly planters and well-to-do, and that many cases occurred among the negroes, who naturally live in squalor and filth and freely intermingle. It is almost like comparing a well-equipped hospital to an over-crowded barracks. The germ of meningitis, which is one of very feeble vitality, will not thrive in the one because the conditions are inimical to its existence, to say nothing of its propagation; in the other the conditions are favorable for its growth and development, and it is then that we see a most rapid spread of the disease, particularly during campaigns. We confess we have our doubts, just as Dr. Barton has, but we can only see in the argument he puts forth another link in the chain of evidence in favor of the contagiousness of epidemic cerebro-spinal meningitis, and we repeat that if time should prove that we are in error, we will have done no harm and possibly some good.—M. G.]

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A NASAL POLYPUS WEIGHING AN OUNCE, AND THREE INCHES AND A QUARTER LONG, SPRINGING FROM THE SEPTUM NASI OF A CHILD OF TWELVE.—Coston (*N. Y. Med. Journal*, August 5, 1899) reports this case as an unusual one on account of the age of the patient, the site of the growth and its size. The pedicle was as large as the little finger, and was torn and cut by the finger nails introduced into the pharynx, and the growth removed mammally. A concise review of the literature is given.

# THE MEMPHIS LANCET.

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## EDITORIALS.

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### QUININ IN MALARIAL HEMOGLOBINURIA.

The *Journal of the American Medical Association* bemoans the fact that it still reads the "assertion" that the administration of quinin in malarial hemoglobinuria aggravates the "symptom," and then *asserts* that very few practitioners in the malarial districts believe that quinin will produce this condition.

The *Journal*, by rules of logic which are naive, to say the least, says: "Why the hemoglobinuria of malarial origin has been singled out among all the other varieties and stated to be increased by the use of quinin, is not clear. Thus we have: (1) paroxysmal hemoglobinuria, and (2) toxic hemoglobinuria, including that due to chlorate of potash, carbolic acid, naphthol, carbon dioxid, and the poisons of infectious fevers, etc." It says further: "The bright red urine observed is not always a hematuria—in fact, a hematuria is the rare exception, for hemorrhages, of whatever nature, are uncommon in all varieties of malaria."

It is very easy to sit on the editorial tripod on the shore of Lake Michigan and, in the above *ipse dixit* style, dictate to experienced men how they should treat a "symptom," of which the editor shows his ignorance by calling it such. Malarial hematuria (one term is as good as another, since both are incorrect) is a pathologic entity,

with a symptom complex all its own.\* To place it in a category with other conditions which also have one of the symptoms does not strike the ignorant swamp doctor as good logic.

Now, to begin with, the form of malarial fever, accompanied by bright-red urine, we denominate hemorrhagic malarial fever. There is a distinct hemorrhage, and it is most effectually treated with quinin, and rationally so, because the malaria is in an active form and requires the classic remedy for its removal. Not so in the other condition; here the bulk of the color is due to methemoglobin, the urine is black or the color of port wine, and, the *Journal* to the contrary notwithstanding, there is always some blood present. In this condition the malarial organism is either already absent or is rapidly disappearing from the blood.

The symptoms of icteric methemoglobinuria of malarial origin are about as follows: After a variable history of previous intermittents, treated *with* quinin, the patient is suddenly taken with a chill, lasting from a few minutes to an hour, the thermometer indicating from 101° to 106°, usually about 103°. This is followed by no increase of temperature and absolutely no sweating. After a short time, from a few minutes to an hour, the patient will pass, with great vesical tenesmus, from 30 to 300 c. c. of dark-colored urine; if the quantity is small it is inky-black, and the prognosis is bad. The urine is highly albuminous, and contains a variable number of blood discs, mostly bleached out; the specific gravity is from 1025 to 1040. If the patient is still under the influence of quinin, a second or third rigor may appear, without any periodicity, and each additional dose, with mathematical precision, will bring on a paroxysm, and each paroxysm is followed by darker urine, but if no more rigors appear it will gradually clear up. The patient has an anxious facies, rapid, sighing respiration, a rapid, feeble pulse, and more or less nausea. In from six to ten hours after the onset, active vomiting appears, which is projectile, the skin becomes markedly jaundiced (darker than obstructive jaundice), the bowels are obstinately constipated, and the shock becomes more marked. The blood in the beginning may contain from three to four million red cells, some plasmodia, and there may be seen some phagocytosis. In twelve hours the count may be one and a half million, and the plasmodia

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\* Vide MEMPHIS LANCET, December, 1898.

may have disappeared; even at the autopsy they may be absent in the internal organs.

In favorable cases, after sharp elimination, all the symptoms gradually disappear, the stools, which were at first black and tarry, become lighter and of a golden-yellow color, the urine is voided frequently, becomes more dilute, and contains epithelia and all kinds of casts. In fatal cases the rigors continue, the patient becomes delirious, suppression sets in, and he dies with "uremia." Or, there may be amelioration of symptoms, but with suppression, the patient will feel well and will not believe that he is certainly doomed, and may live eight days after complete suppression. In some few rare cases the plasmodia may persist and give rise to a febrile movement; in such we use methylen blue, some preferring sodium thiosulphate.

Now, the writer will tell the learned editor of the *Journal* a secret: he has never seen a case treated with quinin recover; on the other hand, by the eliminative treatment the majority of cases make a rapid recovery. This is no editorial bombast, but can be attested by thousands of swamp inhabitants. If a malarial infection is promptly and scientifically treated with quinin this peculiar disorder can be positively prevented, but the dilatory and improper use of it in the face of a malarial cachexia will certainly bring on an attack of methemoglobinuria in a susceptible individual.

The writer has seen several cases of quinin methemoglobinuria; it has no existence apart from malarial cachexia. The editor of the *Journal* can find any number of such cases in the Mississippi Valley, provided he has money enough to induce a subject to take a dose of quinin; they generally take arsenic. It seems to be a chronic condition. We admit that we do not understand it, but know, however, that in chronic malaria the hemoglobin percentage falls after quinin is exhibited, just like the pulmonary effect of a mercurial inunction in secondary syphilis.

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### PURE MILK.

As has been noted in the *LANCET*, the Board of Health is waging active and fruitful warfare on vendors of impure and poor milk. The standard set is that milk shall contain not more than 88 per cent. of fluid and not less than 12 per cent. of solid matters, besides

containing an adequate amount of butter. Many samples examined by the city chemist have fallen short, others have been manifestly watered, many are dirty, not a few have had some preservative, usually formaldehyd, added to prevent decomposition, and at least one sample contained pus and blood from an abscess on the cow's udder. The cases are tried in the police court, and one test case was appealed and won by the Board of Health. There is probably no line of activity along which the authorities can attain quicker or surer results than on this, and it is a source of gratification to all the citizens as well as physicians of the community to see it pushed so aggressively. The actual reduction of infant mortality thus attained is difficult to estimate, but no one doubts that a reduction has been attained. The Board of Health may be sure that it has the hearty sympathy and approval of the medical profession and citizens as well in this most praiseworthy and extremely necessary work.

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#### THE TRI-STATE MEDICAL ASSOCIATION.

The next meeting of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee will be held in this city, November 14, 15 and 16, 1899. Among the interesting features will be reports upon the progress of medicine by the following:

Medicine—Frank A. Jones, M.D.

Materia Medica and Therapeutics—Edwin Williams, M.D.

Surgery—E. A. Neely, M.D.

Gynecology and Obstetrics—W. W. Taylor, M.D.

Ophthalmology and Otology—E. C. Ellett, M.D.

Laryngology—Richmond McKinney, M.D.

These meetings continue to grow in point of number in attendance, and the enthusiasm which marks all the meetings of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee has frequently been the occasion of comment. The meeting promises to be an unusually large and interesting one.

## REPORTS OF SOCIETIES.

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### PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

*Regular Meeting, August 1, 1899.*

The President, Dr. B. F. Turner, in the chair.

Present were Drs. Hall, DeLoach, Smythe, Henning, Pincus, Webb, Barton, Stanley, Reilly, Harkness, Venn, Gardner, Sale, Goltman, Rice, Kane, Krauss, Francis, Williams, Holder, Ellett, Turner, Buford, Hughey, Moore, and H. B. Sanford.

*Dr. Wm. Krauss* read a paper on *The Continued Fevers of the South—Etiology and Laboratory Features*. (See page 122.)

*Dr. M. Goltman* read a paper on *The Differential Diagnosis of Continued Fevers*. (See page 114.)

*Dr. E. P. Sale* said, in regard to *Treatment of Typhoid Fever*, we have no specific. A clean room and confinement to bed are necessary, a trained nurse desirable. There are three plans of treatment: (1) The Brandt method of placing the patient in a tub of water at a temperature of 64° F. as often as the fever goes to 102°. Early in the disease the patient may step into the tub, later he is lifted. He remains in from fifteen to twenty-two minutes, being rubbed during the bath. (2) Mixed treatment, or the use of cold water externally by packs, sponging or sprinkling, and occasionally antipyretics. (3) The specific treatment, such as that advocated by Woodbridge. He is not pleased with the last plan, since intestinal hemorrhage follows it quite often. The mixed plan is most suitable for private practice, and Dr. Sale uses it by laying patient on an inclined cot covered by a rubber sheet, cool water is poured on the trunk, and the temperature thus gradually reduced. He uses intestinal antiseptics, generally a mixture of sulphocarbolate of zinc, hydronaphthol and calomel, every three hours. For diet he allows milk, koumiss, broths, and, during convalescence, eggs, milk, toast, etc.

*Dr. B. G. Henning* said that twenty-five years ago we had no typhoid here, and even now we have very little, and that is mild, with low mortality. He seldom sees the characteristic facies of

typhoid. At this time there is much fever in Memphis, the cases showing high temperature and abdominal tenderness. In the cases not typhoid this is probably due to a catarrhal enteritis, and iliac gurgling is also often present. If we can be sure of the eruption, that of typhoid is pathognomonic. Diarrhea is not present in many cases at this time. We usually treat these cases as malarial, with calomel and quinin. He regards calomel as an excellent intestinal antiseptic, by virtue of the bile which it causes to be produced. He follows the calomel with the bichloride, and regards this line of therapy superior to that by other so-called intestinal antiseptics. Temperature is best controlled by water—antipyretics being sparingly used, since they are depressants. In diet he varies very much. Tomato juice or stewed tomatoes answer well, but of course milk, broths, etc., are used.

*Dr. S. E. Rice* thinks that nine-tenths of our fevers are malarial and one-tenth typhoid. He does not recognize a third fever, but thinks there are cases in which the plasmodium has disappeared but a malarial intoxication persists. In fevers lasting over twenty days he almost always gets the Widal reaction. Cases of shorter duration are due to autointoxication or uneliminated malarial poison. The Brandt treatment has certainly lowered the death rate in typhoid. He finds that the so-called "X fever" will yield in nine to thirteen days to mercurials, antiseptics and eliminants.

*Dr. D. M. Hall* sees cases of mild continued fever—the patient not sick enough for typhoid—which are benefited by free purgation.

*Dr. F. D. Smythe* thinks the diagnosis by clinical symptoms is often difficult. He thinks we have a good deal of mild typhoid here. All infectious diseases are growing milder. He regards the tremulous tongue and dicrotic pulse as constant signs of typhoid, and, in treating the disease, aims to keep down the temperature, stimulate the heart, and feed the patient. He finds buttermilk the best article of food.

*Dr. G. G. Buford* said the diazo-reaction was of no value in diagnosing typhoid, since it is present in septic conditions and the exanthemata. He is under the impression that the Widal test is not pathognomonic. He has never seen a typical case of typhoid, and does not think we have it here. He relies on the water treatment and liquid diet in managing continued fevers, and has only seen one death from this disease, and that was from hyperpurgation.

*The President* thinks our "slow fevers" are often septic, but has seen, post-mortem, the characteristic lesions of typhoid many times. Enteric fever is by no means always typhoid.

*Dr. Krauss* does not think we have much typhoid here. Typhoid will give the Widal test in ninety-seven per cent. of cases, and no other sign is so constant. Cases that are not typical, do not give the Widal reaction, and no plasmodia exist in the blood, must be cases of a third fever.

*Dr. Goltman* thinks that more extensive bacteriological study of these cases will clear up the subject. If the men who have the practice and the ability to throw light upon this subject will not do so when the means, in the shape of a well-equipped bacteriological department, is at hand, those who are not fortunate in having these advantages cannot expect to do so. Not only will the bacillus coli become pathogenic in typhoid and yellow fevers, but it may and does become so in almost any depressed or vitiated condition, as well as inactive inflammations, like appendicitis. There is not only an individual, but also a family, predisposition to the disease. Acid drugs furnish a favorable field for bacterial growth (typhoid), for the reason that it grows better on acid potato than on alkaline or neutral, and the best medium (Elsner's) is acid. Errors in technique may explain differences of opinion in regard to the Widal test. Dock says the cycle of relapse in severe malaria in Cuba is five days, not seven, but this is not the case here. Dock gives quinin according to the Bastianelli method—that is, as the temperature is falling. Baths may be conveniently given by laying the patient on a rubber sheet, drawing up the ends and tying them in a knot, and the sides to form a trough, and sprinkling the water on the patient from a sprinkling can; both the pressure and temperature of the water can then be easily regulated. Antiseptic drugs irritate the already inflamed intestinal mucosa, and are not desirable. Nor are animal broths advisable, since they furnish the most excellent media for bacterial (typhoid) growth. Page starves his patients, gives plenty of water, and reports excellent results. Typhoid is seemingly milder now, and may run its course in fifteen days. Calomel is a biliary sedative, according to the latest researches.

*Dr. Sale* recognizes three fevers in this locality, and thinks there is a good deal of typhoid here. Water has the same effect



applied externally, no matter how it is applied. Animal broths are valuable, in spite of theoretical objections.

*Dr. Henning* has taught that calomel is a biliary sedative, and again that it is a stimulant. He is not sure which is correct. He does not question the accuracy of the microscope, but the ability of some of the men who do pathological work. Thompson, in his "Practical Dietetics," and many other authors, condemn animal broths as unsuited for diet in typhoid, but practically it is almost impossible to do without them.

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## PROGRESS OF MEDICINE.

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SOME REMARKS ON TYPHOID FEVER AMONG OUR SOLDIERS DURING THE LATE WAR WITH SPAIN.—*Vaughan (Am. Jour. Med. Sci., July, '99)* gives the results of observations made by himself, Reed and Shakespeare, who acted as a committee appointed by Surgeon-General Sternberg to study the causes and the spread of typhoid fever among the troops in the various camps within the United States.

All the larger camps were inspected, including Camp Alger, the camps at or near Fernandina, Jacksonville, Huntsville, Chickamauga Park, Knoxville, Wyckoff and Meade. The water supply, quality and quantity of food, nature of soil, space allotted, arrangement and size of the tents and number occupying them, the location of sinks with reference to the mess tents, the disposition of fecal matter and garbage, etc., were inquired into. The hospitals and methods of disinfection in them were studied, and also the records in the office of the Surgeon-General. It soon became apparent that no scientific method of diagnosis had been practiced, and steps were at once taken to do this. Competent men equipped to make blood examinations were at once assigned to duty, and it soon developed that, although malaria had been diagnosed in most instances, "malaria was a very rare disease among those troops who remained in the United States." At Camp Alger not a single blood examination showed plasmodia. Dr. Dock found one case at Chickamauga and one at Camp Meade; the former had had malaria at home in Arkansas before enlisting; the other belonged to a Pennsylvania regiment which was from a camp on the banks

of the Potomac. The 158th Indiana, 6th Ohio and 1st West Virginia were encamped side by side at Chickamauga as one brigade. The reports show that malaria prevailed in the Indiana regiment from May throughout the summer. There were no cases in the Ohio regiment in May, 3 in June, 11 in July, 103 in August, and 203 in September. In the West Virginia regiment malaria first appeared in August, when 108 cases were reported.

This remarkable mode of development, says the author, is not in accord with any known epidemiological facts concerning this disease. In the Ohio records 273 cases are set down as malaria. Sifting these cases according to the length of the illness, 66 might have been as well recorded as febricula, 148 were still sick on October 31, leaving 59 of completed malaria, among which there are quoted 12 deaths, a high rate for "mild, remittent malaria." The author and his associates therefore conclude that practically all of these cases were typhoid fever, because, 1, the uneven distribution of "malaria" among regiments camped side by side: 2, some of the surgeons recording their cases as malaria, state that typhoid fever prevailed in the regiment; 3, the results of several hundred blood examinations showed that malaria was a very rare disease among these troops; 4, these cases were uninfluenced by large doses of quinin; 5, the mortality of the so-called protracted malaria equals that of typhoid fever.

The study of the regimental sick reports showed that the number of cases of "malaria" in some regiments corresponded to the number of typhoid in others. Other names were used to cover up typhoid fever; there was 15 per cent. of deaths from "prolonged indigestion"; some were diagnosed as dengue. That dengue should have prevailed in one regiment only among the 60,000 troops at Chickamauga is too absurd to receive serious attention. Typho-malaria and continued fever were names on the records.

As to the origin, the author is able to state that some cases had developed in regiments before they reached the national camps. "This aversion to calling typhoid fever by its right name seems to exist among the medical officers in all armies; the German medical officer often calls the disease 'gastric fever,' and this term appears now and then in the records when the surgeon happens to be a German. The French call it 'manœuvre fever.' I am inclined to the opinion that medical officers often are led to suppress the diag-

nosis of typhoid fever for fear of the alarm that it will give the patient and others."

As to the mode of spread, the investigation of drinking water resulted negatively in the majority of instances. Soldiers and residents generally used the same water, and yet the latter had no typhoid fever. The method of disposing of the fecal and urinary discharges was found to have the most bearing upon the spread, since each method of disposal had a mortality rate of its own; indeed the most potent factor in the spread of typhoid fever at most of the camps was camp pollution with infected fecal matter. Where pits were used, flies swarmed over the infected fecal matter and then walked over the food at the mess tents. In many of the regimental camps fecal matter was deposited about the camp on the ground; in some camps at Tampa the sinks were overflowed by the rains, and fecal matter floated through the streets of the camps; paper soiled with fecal matter was blown about the camp. In some instances where a regiment occupied the site vacated by a previous regiment, the second command found themselves in the filled sinks of the former regiment. One Pennsylvania man was found attempting to run the guard by getting into a water barrel on its way to the spring from grounds that could not be traversed without soiling the shoes with fecal matter; clothing, tentage and blankets were doubtless similarly infected. The milk supply was not found likely to have been a frequent carrier of infection.

Some recommendations are made to prevent the introduction and spread of fever in camps, and are followed by tables which served to make up the conclusions, of which the following is a synopsis:

- a. A regiment thoroughly infected with typhoid fever does not lose the disease by changing locality, even when going to a perfect site and leaving its sick behind.
- b. If a regiment be moved before the infection has become marked, typhoid fever may disappear or at least decrease.
- c. Apparently a sea voyage of some days or weeks might rid a command, not widely infected with typhoid fever, of the disease.
- d. A regiment thoroughly infected with typhoid fever does not lose the disease or lessen the number of cases after a short voyage at sea.

**THE TREATMENT OF SUMMER DIARRHEA IN INFANTS.**—Chapin (*Med. News*, July 25, 1899) divides this into preventive, dietetic, and medicinal. As causes, are mentioned mistakes in feeding, too frequent application to the breast or bottle, improper preparation and faulty composition of artificial food, the depressing effects of hot weather, etc. Hence the preventive treatment must be directed to correcting these errors. The city authorities should keep the streets clean, supervise the milk supply, and plant shade trees, which have a great modifying influence on the temperature. In the domicile, extra cleanliness should be exercised, food must be promptly removed after a meal, the milk is preferably Pasteurized as soon as delivered in the morning, then properly diluted. A bottle-fed baby should take its nourishment relatively more dilute, and barley or other cereal added, to more finely divide the curd. The idea that young infants cannot digest cereals is erroneous. Infants may be allowed to play in the bath during the hottest part of the day, and should have on only one garment, to allow freedom of movement and circulation of air. Younger infants should be frequently sponged with water and vinegar, or with a little alcohol added.

As soon as the first vomiting occurs, indicating a dyspeptic condition, all food should be at once withheld; if this must be for several days, mutton-broth, free from fat, thin gruel made from wheat flour and cold whey, egg albumen and water, with perhaps a little aromatic spirit of ammonia added, may be given. When the acute symptoms have subsided, very dilute milk may be tentatively given. This can be curdled with rennet, so as to divide the curd as finely as possible without souring.

The medicinal treatment assumes less importance in direct proportion as the preventive and dietetic management are carefully followed. If vomiting is persistent, frequent drafts of tepid water may be given, which will wash out the stomach; the bowel can be cleansed with the colon tube. Calomel,  $\frac{1}{10}$  gr., every hour for six doses, or a single large dose of castor oil, if the stomach will retain it, is beneficial. Subnitrate of bismuth is preferred by the author, in doses of 10–20 grains every two to four hours for an infant of from 6 to 12 months old. Most of the so-called antiseptics are irritating and cannot possibly accomplish what is claimed for them. Small doses of aromatic spirit of ammonia, 10 to 20 drops, well diluted with water, stimulate the mucous membranes and refresh

the baby. Opium should only be given alone, to meet special indications, such as rapid peristalsis, profuse glandular secretion, but only after the bowel has been thoroughly cleansed.

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QUININ IN MALARIA.—Geo. Dock (*Jour. Amer. Med. Assn.*, July 29, 1899) discusses at length the use, dose and time for administration of quinin in malaria, and is led to the following conclusions:

In a tertian or quartan intermittent, or any combination or duplication of these, quinin should be given in the decline of the paroxysm if possible; or not later than at the end of the apyrexia. The difference depends on the time the patient is seen or the diagnosis made. The dose should be given at one time, or in parts at short intervals, in such a form that absorption may be confidently expected. I have found it very satisfactory to give the full dose in the form of the hydrochlorate, in capsules, followed by 15 drops of dilute hydrochloric acid. In patients who have been unable to retain other preparations, I have been successful by giving three five-grain capsules half an hour apart, with a small dose of dilute hydrochloric acid after each, with directions to repeat in half an hour if any dose was vomited.

In an ordinary single infection, when the drug is given in the decline, there will not be another paroxysm. In double infections there may be another paroxysm, often milder than the preceding. If there is a rise of temperature of more than a degree, or if the blood shows parasites, a second dose should be given, also in the decline, and if necessary even a third or more. Few cases require more than three. After the temperature falls no quinin need be given for the specific effect, and if it be used as a tonic not more than two grains three times a day should be taken. Other remedies may be used as indicated, the indication for iron being controlled if possible by an expert examination of the blood besides that of the patient in general.

The evidence of the decline of the temperature is best based on the thermometer, used every hour after the chill, but in case the characteristic profuse sweating occurs, it is a sufficiently accurate guide, and the great changes in the body following sweating probably assist in the absorption of the drug.

In the remittent or estivo-autumnal fevers, the intervals are not so clearly defined as in the tertian and quartan infections. If they

are, the decline of the fever can be recognized by careful use of the thermometer, or by the improvement in the subjective sensations. Very often in these cases the parasites become mature at times varying widely, so that not only is the curve difficult to interpret, but the parasites are not equally influenced by the remedy. Very often, too, the symptoms are so alarming, or the number of germs found in the blood so large, that immediate treatment seems necessary. In such cases the quinin should be given in doses of five to ten grains, according to the severity of the case, at intervals of four to six hours, until a marked remission occurs, and then the daily intermittent dose be given until the fever disappears, or, better, until the condition of the blood shows that quinin is not indicated.

*Relapses.* The treatment of the relapses of malaria is a matter of importance. Except in mild cases, a return is to be expected and guarded against. This is a fact long known but apparently often forgotten. Patients are often aggrieved to find that the "dead-sure" prescriptions of their doctors—usually polpharmaceutic marvels—have not stopped their chills for all time, as they were led to expect.

The relapse often takes place on the seventh day or some multiple of it, either fourteen or twenty-one days, or later. In severe infections, it often comes earlier, and in the relapse of Cuban fevers the fifth day or the fourth after the last fit may see the return of a paroxysm. The cause of the relapse is not difficult to explain. The parasites are scotched, not killed, and only reach sufficient numbers to cause another paroxysm after a lapse of time. They can be found, by careful search, before the day of the paroxysm, and they sometimes cause slight elevation of the temperature in the days preceding the relapse. Golgi's claim that relapses are less frequent in cases treated according to his plan than if the drug is given in the decline, must have many exceptions. It is therefore advisable to give quinin at intervals after the paroxysms have stopped, even if his method is used. The interval in ordinary tertians should be seven days, in more severe cases five days. In this way we not only lessen the danger of relapses, but we also cause a discontinuous or intermittent sterilization of the blood and hasten the complete recovery of the patient.

OTITIS MEDIA AND EARACHE IN LOBAR PNEUMONIA OF CHILDREN. Meltzer (*The Philadelphia Med. Jour.*, August 5, 1899) in the conclusion of his article brings out the following points:

1. Otitis media is an extremely frequent disease in children, especially in poorly-nourished ones.

2. Broncho pneumonia is very frequently complicated with otitis media.

3. In lobar pneumonia of children purulent otitis media is at least very rare, possibly because the pneumonia by its hyperleukocytosis acts as a derivative upon the otitis.

4. Many cases of lobar pneumonia begin with an earache which disappears gradually.

5. The hypothesis is offered that possibly this is only a sympathetic pain of the chronically inflamed drum.

6. In offering this hypothesis the idea is introduced of a summation within the central organ between the effects of an abrupt and of a continuous stimulus, a conception which might prove to be fruitful in pathology, in which all the chronic and many acute inflammations are the seat of such continuous nerve stimulations.

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VAGINAL COLPOTOMY IN THE TREATMENT OF PELVIC DISEASE.—Glass (*Medical News*, August 5, 1899) summarizes the following as the advantages claimed for vaginal as against abdominal section:

(1) A preliminary or exploratory vaginal section is always warrantable. (2) Drainage when necessary is more free and natural. (3) There is less danger of extending infection. (4) The limited peritoneal field exposed and handled reduces to a minimum, pain, shock, and intestinal paralysis, frequent sequelæ of suprapubic abdominal section. (5) Post-operative nausea is lessened, and movements of the patient are less constrained, contributing much to her comfort and welfare. (6) Vaginal section may frequently be performed when the condition of the patient, especially in abscess cases, would interdict any other procedure. (7) The danger of hernia through the scar is practically *nil*. (8) Recovery is quicker. (9) The mortality, as calculated from all reported cases, is materially lessened.

The contraindications for the vaginal operation are: (1) An unusually small or septic vagina. (2) Such fixation of the uterus that it cannot be drawn down, or such enlargement of the organ that operations on the adnexa, when desired, cannot be carried out.

- (3) Evidences of tubercular degeneration or appendicular disease.  
(4) Carcinoma with involvement of the uterine ligaments or iliac glands. (5) Cases of pelvic hemocele with active non-circumscribed hemorrhage.
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## NEWS AND NOTES.

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DR. M. B. HERMAN returned from Atlantic City on the 10th.

DR. ROBT. H. MITCHELL spent the last two weeks of August in Michigan recuperating.

DR. A. G. SINCLAIR left about the middle of August for a two months' vacation in the East.

THE *Columbus Medical Journal* has a new editor, Dr. J. U. Barnhill having been chosen to succeed Dr. J. E. Brown, who recently resigned.

DR. E. D. MITCHELL has associated himself with Dr. W. W. Taylor instead of with Drs. Mitchell & Maury, as announced in the last issue of the LANCET.

DR. A. RAVOGLI, of Cincinnati, a contributor to the LANCET, and for a long time the Italian consul in Cincinnati, has been made cavaliere by King Humbert of Italy.

THE Philadelphia Board of Health has placed at the district police stations a supply of antitoxin, to be furnished free to physicians for use in their practice among the poor.

DR. P. M. FARRINGTON, formerly Superintendent of the City Hospital, who is now taking a post-graduate course in ophthalmology and otology in New York, will return to Memphis in October, and will associate himself with Dr. J. F. Hill in the practice of that specialty.

THE appearance of yellow fever at the Soldiers' Home, Hampton, Va., will put the whole South on the *qui vive*. Fortunately the situation was well handled by the United States Marine Hospital Service, and there was practically no spread, and the outbreak was soon "stamped out."

THE International Conference for the Prophylaxis of Syphilis and Venereal Diseases, and also for the Study of Methods for the



Control of Prostitution, will be held in Brussels on Sept. 4th *et seq.* Papers will be read by Drs. Fournier of Paris, Neisser of Berlin, Finger of Vienna, and others. A large committee has been appointed to investigate conditions of prostitution in their respective countries. Dr. Isadore Dyer, of New Orleans, will represent the United States. Dr. Dubois-Havenith is the Secretary-General of the Conferences.

THE City Council has elected Dr. Stephen E. Rice to the position of Gynecologist on the staff of the City Hospital, made vacant by the resignation of Dr. R. B. Maury. Dr. Rice is a graduate of the University of Pennsylvania, class of '94, and a former resident physician in St. Agnes' Hospital, Philadelphia. He is at present one of the visiting physicians to St. Joseph's Hospital, a co-editor of the LANCET, and an associate of Drs. Mitchell & Maury. Dr. Rice's election, while probably somewhat of a surprise to himself and his friends, is a deserved compliment to one of the most competent and conscientious of the younger members of the profession.

THE *St. Louis Courier of Medicine* has resumed publication, and from the character of the first number, the profession is to be congratulated on the fact. Drs. Nicholas Senn, Ludwig Brewer, Roswell Park and A. J. Steele are the contributors to this number, which is of unusual excellence. The editors promise a clean and ethical journal, and propose to maintain the journal in a style which we are sorry to say is not that which is at present most followed by the other St. Louis journals. The LANCET gladly welcomes a journal whose moral and ethical tone is as high as its own, and assures the *Courier* that its efforts in that direction will meet with the warm support of the profession.

THE Pennsylvania State Board of Medical Examiners have published the following tabulated statement of the result of their spring examination:

Colleges	No. Examined	No. Failed	Per cent. Failures	General Average
University of Pennsylvania.....	143	1	0.7	86.00
Women's Philadelphia .....	28	...	.....	81.22
Medico-Chirurgical .....	93	15	16.3	79.94
Western Pennsylvania .....	46	7	15.2	79.01
Jefferson.....	34	3	8.8	78.24
Miscellaneous .....	74	22	29.7	76.31
Baltimore Medical.....	7	4	59.1	72.84
General average.....	425	52	12.2	80.94

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as good, if not a little better." And the good people, looking up at his halo, believed him for an honest man, and went forth from his store well pleased at his kindness in giving them something even better than what the doctor ordered. To others he would say nothing, but would fill their prescriptions with his own concoction and send them away in ignorance of what he had done. And as the shekels poured in on his counter like golden rain, his soul laughed with glee; for in his mind he saw himself rich beyond compare. But the people grew well no longer. No more did they repair unto the doctor with thankful hearts. Instead of returning unto him with praise and thanksgiving, as before, they approached his sanctum with lamentation and wailing. And curses were his instead of shekels. "What, ho!" quoth he. "Wherefore am I getting it in my cervical region? Can it be possible that I, even I, have become a 'has been'? Or has my favorite tonic failed me in my old age?" And he made talk with his patients seeking knowledge whereof they were no better. And after many questionings he learned of the iniquity of the man of drugs. Then he was wroth, and with voice like the raging wind he poured forth unto the heavens the crime of the druggist. And all the people heard. Therefore did they meet together, and with one accord hastened unto the store of him who had defrauded and cheated them. And

their anger knew no bounds; for they took him out into a lone place, and, with no unnecessary ceremony, *hanged him to a tree*. Then on his breast was pinned a card on which were written the fateful words—“*Not what he wanted, but something just as good.*” No more thereafter was substitution known in the land, and the people thereof became well and lived happy ever afterward.

TO DOCTORS.

*Moral*—Beware of substituting druggists if you expect to cure your patients.

TO DRUGGISTS.

*Moral*—Beware of the wrath of the doctor and patient on whom you practice substitution.

A MAXIMUM NUTRITION AT A MINIMUM COST.—The unheralded advent of a dietetic debutant in the domain of medicine may not be attended with the flourish of trumpets and acclaim that some

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The Board of Health makes the following examinations free for the city Physicians: Exudate and sputum for diphtheria and tubercle bacilli, typhoid and yellow fever blood reaction and malaria organisms, well and cistern water and milk.

For other work I will charge the following fees: Urinalysis, chemical and microscopical, \$2.00; including staining for tubercle bacilli, \$3.50. Quantitative for sugar, \$2.50. This covers the work necessary to make a conscientious diagnosis, and for *life insurance*. Pus for gonococci and other microorganisms, \$2.00. Feces for parasites, eggs, etc., \$5.00. Blood for typhoid and yellow fever reaction, for malaria organisms, diphtheria exudate and sputum for tubercle bacilli, \$2.00. Other examinations for poisons, etc., according to labor and material consumed.

FELIX PAQUIN, Ph. B.,

Chemist and Bacteriologist of the Board of Health.  
Member of the Association of Official Agricultural Chemists.

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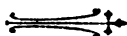
sensational discovery in serum-therapy secures; yet it cannot be denied that it is to the forced feeding of patients in phthisis that actual progress counts in combating this disease. Any substance or combination of food elements which would furnish concentrated and complete nourishment in malnutrition should merit the consideration of every thoughtful physician. Tropon, containing 90 per cent. pure albumin in the ultimate form of its absorption, must be reckoned as an important discovery and certainly a valuable contribution to food chemistry and food digestibility. When nutrition is deficient on account of exhaustion from disease or overwork, Tropon supplies ample nutritive material, and it can be readily adjusted to a mixed dietary. It does not impair normal digestive vigor, nor induce the aversion and monotony arising from the exclusive use of other food products. Tropon is capable of insuring prolonged and sustained nutrition *per se*. It is a perfect and complete substitute for albumin in ordinary food. The clinical

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experiments of Prof. Finkler and his pupils have shown that it is best used as an adjuvant with other food. Tropon is palatable, well borne, and does not cause intestinal disturbances. On account of these many striking advantages, and also its small bulk and low price, Tropon should achieve the same measure of success here as in Europe, and thereby justify the reputation of its discoverer, Prof. Finkler, of the University of Bonn, Germany. Drs. Strauss and Plaut of Berlin, Klein and Schmelinski of Hamburg, and Rumpf of Gorborsdorf, give unstinted praise to Tropon as an unrivaled food value in the various processes of digestion, absorption and assimilation. All of the above authorities report a rapid increase in weight from its use. Dr. S. A. Knopf, of New York, in his recent work on pulmonary tuberculosis, says on page 241: "Of the many food substances which have been recommended recently as especially valuable in the dietetic treatment of tuberculosis, I have used most extensively, and with most satisfactory results, the new product Tropon."

THE Mellier Drug Company of St. Louis have recently mailed to the entire medical profession of the United States a handsome engraving of "The First Meeting of the Medical Society of London held in 1773," together with a circular mentioning every one of the members whose portraits are presented in the picture, and

stating in what particular line each was preëminent. This engraving should prove an interesting and attractive addition to the walls of every physician's office, and if through an oversight any physician failed to receive a copy, or if his copy was damaged in transit, one can be obtained gratis by applying to the Mellier Drug Co., 2112 Locust street, St. Louis, Mo.

**TYPHOID TRUTHS.**—Many questions in regard to typhoid fever are as yet "sub judice." This disease is still a fruitful field for the medical essayist, also for the therapeutic theorist. Some facts, however, have been conclusively demonstrated. It is proven, first, that typhoid fever is caused by a specific microörganism; second, that it gains entrance to the circulation via the alimentary canal; third, that the intestine swarms with different varieties of germ life; fourth, that the aseptic and antiseptic treatment of this disease is the most rational and successful one; fifth, that Liquid Peptonoids is a valuable auxiliary fluid food for typhoid patients. These truths naturally lead to the formulation of therapeutic conclusions. They point out the following clinical indications for treatment:

As a food, it must be fluid. Also nutritious. It must admit of almost complete absorption by the stomach. It must be non-fermentable, or, in other words, aseptic. White milk will always constitute the patient's main dietetic reliance. It possesses two distinct disadvantages: (1) It leaves a residue after but partial stomach digestion—hard curds of coagula which mechanically irritate the ulcerated patches; (2) it ferments in the bowel, and furnishes pabulum for germ propagation. It thus adds to the existing septic infection.

Liquid Peptonoids is an ideal food help in typhoid fever; it is fluid; it contains the required amount of nutriment; it is completely peptonized, and therefore capable of complete stomach absorption. No residue left for intestinal digestion. It is absolutely sterile and aseptic. It cannot, therefore, add to fermentative processes. In addition it is very palatable and forms a grateful change from milk, which often palls upon the appetite. It is also slightly stimulating. Such a combination of qualities leaves nothing to be desired. It can be taken plain or in milk or water as preferred. Dose: 1 to 2 tablespoonfuls every two to four hours. Samples upon request. The Arlington Chemical Co., Yonkers, N. Y.

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*TRY it in Anæmia*, measuring the increase of red cells and hæmaglobin in the blood as you proceed, together with the improving strength and functions of your patient.

*Try it in Consumption*, with the same tests from week to week.

*Try it in Dyspepsia* or Malnutrition of young or old, and watch the recuperation of the paralysed alimentary powers.

*Try it in Intestinal* or gastric irritation, inflammation, or ulceration, that inhibits food itself, and witness the nourishing, supporting and healing work done entirely by absorption, without the slightest functional labor or irritation; even in the most delicate and critical conditions, such as Typhoid Fever and other dangerous gastro-intestinal diseases, Cholera Infantum, Marasmus, Diarrhœa, Dysentery, etc.

*Try it per rectum*, when the stomach is entirely unavailable or inadequate.

*Try it by subcutaneous* injection, when collapse calls for instantaneous blood supply—so much better than blood-dilution!

*Try it on Chronic Ulceration*, in connection with your antiseptic and stimulating treatment (which affords no nourishment) and prove the certainty and power of topical blood nutrition, abolishing pus, stench, and PAIN, and healing with magical rapidity and finality.

*Try it in Chronic Catarrhal* Diseases; spraying it on the diseased surfaces, with immediate addition of peroxide of hydrogen; wash off instantly the decomposed exudation, scabs and dead tissue with antiseptic solution (Thiersch's); and then see how the mucous membrane stripped open and clean, will absorb nutrition, vitality and health from intermediate applications of pure bovinine.

*Try it on the Diphtheritic Membrane* itself, by the same process; so keeping the parts clean and unobstructed, washing away the poison, and meanwhile sustaining the strength independently of the impaired alimentary process and of exhaustive stimulants.

*Try it on anything*, except plethora or unreduced inflammation; but first take time to regulate the secretions and functions.

*Try it on the patient* tentatively at first, to see how much and how often, and in what medium, it will prove most acceptable—in water, milk, coffee, wine, grape, lemon or lime juice, broth, etc. A few cases may even have to begin by drops in crushed ice.

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## ORIGINAL ARTICLES.

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### CLINICAL TYPES OF THE URIC ACID DIATHESIS.\*

BY I. N. DANFORTH, A.M., MD.  
CHICAGO.

It does not require a very extensive or prolonged experience in clinical work to show a careful observer that the victims of the so-called uric acid toxemia present a considerable variety, as regards form, feature, complexion, temperament, and all other characteristics which go to make up the personality of the individual patient. In other words, there is no ideal or fixed type which brands the lithemic patient, any more than there is an ideal or fixed type which marks the diabetic patient. But pretty careful study of my lithemic patients for the past five or six years seems to show that nearly all cases will fall into one of three groups, although an occasional case may so nearly combine the peculiarities of two of these groups that it may be doubtful which one has the strongest claim. The typical cases, however, present no difficulties, and even the doubtful ones usually present the "earmarks" of one or other of the three groups, if they are carefully observed.

As a preliminary, however, it is well for us to understand what we mean by a "lithemic" patient, since the term can no longer be limited to those who have acid urine with a more or less copious

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\* Read before the Association of American Physicians at its Annual Meeting in Washington, D. C., May, 1899.



deposit of uric acid or mixed urates. I would designate a person as a "lithemic" patient whose urine is habitually strongly acid, high-colored, and of high specific gravity (1025 to 1030), now and then slightly albuminous, with mucin—i. e., "cylindroid"—or occasional small hyaline casts, and which deposits uric acid or mixed urates, and perhaps oxalates on cooling. Such a patient is habitually "bilious" as the result of hepatic torpor, and the liver is frequently slightly swollen, the bowels are constipated, and the gastrointestinal tract is distended with flatus, the tongue is coated, the breath is foul, and the patient is constantly complaining of and dosing himself for "indigestion." Such cases include not only those in which uric acid is a visible and potential factor, but all cases which are the direct or remote consequence of the toxic effects of the alloxuric or xanthin compounds. Returning, now, to the postulate which forms the basis of and serves as the excuse for this paper, I repeat that in clinical experience we find three well-marked types of uric acid diathesis, each type clearly and sharply defined by examples which are of frequent recurrence in hospital wards, dispensary *habitués*, and office patients. These types I would classify as follows:

- (a) The plethoric type.
- (b) The neurotic type.
- (c) The anemic type.

In place of a detailed description of each type, I will illustrate by a brief description of cases, quoting from my office records.

(a) *The Plethoric Type.* Examples of this type are very common in clinical experience. The patients are mostly middle-aged, "well-to-do" men in active business pursuits, frequently overworked and overburdened with financial cares, the so-called "hustlers" who make things come to pass, and without whose sturdy and often herculean labors most of the successful enterprises of this world would turn out failures. As illustrative of this type the following case is presented:

Case I. P. A. M., aged 50 years; weighs 194 pounds; is five feet ten inches in height; married; father of three healthy children; is a merchant, but a couple of years ago had a financial reverse, and has since filled a responsible salaried position in a bank. He first consulted me April 15, 1897. At this time he looked the picture of robust health, but physical examination showed slight cardiac hypertrophy, with a short, sharp, angry systole, and considerable arterial tension. The liver was perceptibly enlarged, and he had constant and annoying gastro-intestinal flatulency, with coated tongue, foul breath, constipation, and a whimsical appetite, although he was a

rapid and rather a gross eater, "bolting" his food in a half-masticated condition. He had always been a temperate man, used no tobacco, and there was no history of venereal disease. He complained of some headache, occasional attacks of giddiness, a little shortness of breath after unusual exertion, backache, and occasional transitory or "flying" pains in the smaller joints of the extremities. Examination of the urine showed acid reaction, specific gravity 1015, urea 1.5 per cent., albumen a well-defined trace, no sugar, a copious deposit of lithic acid crystals, a few leukocytes, a few small hyaline casts, and numerous "cylindroids" or mucin casts. The quantity of urine varied from three to four pints in the twenty-four hours, so that the output of solids was practically normal.

Under appropriate treatment, a carefully regulated dietary, the free use of pure water, and an increase of outdoor exercise, the albumen and casts disappeared, the lithic acid was reduced materially, and the troublesome symptoms gradually abated; in fact, he recovered in a technical sense, yet his peculiar constitutional tendency remained. He has still recurring lithic acid "showers," and every now and then requires "curing" over again.

What is the nature, or what is the "diagnosis" of this case?

Not many years ago I would have made an off-hand diagnosis of "chronic interstitial nephritis," and a gloomy prognosis would follow as a matter of course. In a certain sense, it must be admitted, the diagnosis of "interstitial nephritis" would be correct, and yet it is a crude, superficial and misleading diagnosis, because it is based upon a false and superficial view of the essential pathology of the case; and as it is presented as a type of a very common and numerous group of cases which in my judgment are frequently misunderstood, and are therefore subjected to maltreatment socially and therapeutically, I purpose devoting a few moments to the elucidation of what I believe to be the real nature or the intrinsic pathology thereof.

1. There is present in all such cases a "catarrhal nephritis," as shown by the constant presence of slight albuminuria, few or more leukocytes, and the so-called "false casts" or "cylindroids."

Catarrhal nephritis, as a pathologic entity, was described by me in detail in a paper read before the Illinois State Medical Society at its meeting in 1885, and, so far as I know, has not been described by anyone else, either before or since that time. My paper fell stillborn before the Illinois State Medical Society, was quietly laid away in that "bourne" from whence no paper ever returns—the annual volume of *Transactions*, and has been sleeping there ever since. Nevertheless, the accumulated experience of the bygone years has assured me that a chronic catarrhal condition of the renal

tubules—a condition analogous to catarrh of the bronchial tubes—is a common occurrence, is frequently associated with uric acid toxemia, and is undoubtedly, in most cases, caused thereby. It is quite possible for this simple catarrhal condition to remain uncomplicated and unmixed for long periods of time—weeks or even months—and then to recover, precisely as a bronchial catarrh may recover, without losing its identity or changing its essential nature. *Therefore*, it is entitled to consideration as an independent pathologic entity, and not merely as a symptom, or as a stage or stepping-stone to something else.

2. There is also present in many cases belonging to this class an interstitial hyperplasia of the kidneys, in proof of which we find slight albuminuria, a few small twisted or distorted hyaline casts, and a certain degree of the cardio-vascular tension long since described by Mahomed. It is not true, however, that “nephritis” is a proper term to apply to this process, inasmuch as it is not aggressively inflammatory in its nature, and does not result in hypertrophy followed by the small red kidneys, as is the case in true interstitial nephritis. It does produce a slow and sluggish nutritive hyperplasia of the embryonic connective tissue of the kidney with induration of the organ, but without the wasting and distortion so characteristic of true interstitial nephritis. It is a very significant and interesting fact, that while this increase of connective tissue is going on in the kidney, precisely the same process is generally taking place in the liver, as Dr. Emil Boix has so clearly pointed out in his admirable little brochure on *The Liver of Dyspeptics*.

3. But while these palpable and visible lesions are undeniably present, they are not by any means the primary pathologic factors in the cases under consideration. There is another factor which antedates the anatomical lesion by a long period of time, months or even years, and this factor is the constant presence of lithic acid or other unnamed, and, perhaps, unrecognized compounds of the xanthin series. These bodies exert a peculiarly irritating or exasperating influence upon the connective tissues of both the kidneys and liver, sometimes manifesting their effect chiefly and primarily upon the kidneys, sometimes chiefly and primarily on the liver. In the majority of cases, I think, the kidneys suffer first and perhaps most, but in a respectable minority, certainly, the liver responds more promptly than the kidneys, and keeps in advance of these

organs in the series of retrograde changes which follow. In all cases both kidneys and liver become more or less involved, the difference being one of degree, and not of kind. If we seek to explain the occult influence which the lithic acid wields over the connective tissues of the organs under consideration, we are at once confronted with insurmountable difficulties. Not until we have fathomed the mysteries which surround the ultimate phenomena of normal nutrition, the conversion of normal pabulum into substance like itself by the normal cell-nucleus, and the conversion of the nucleus itself into perfect and normal tissue, can we expect to explain the equally occult phenomena of abnormal or pathologic nutrition. This, however, is true, that the presence of lithic acid and its allies in abnormal amount in the blood, especially if this condition is at all frequent, excessive, or permanent, is certain to set up in the connective tissue of the kidneys and liver a process of nutritive hyperplasia which results in a mild or partial cirrhosis of those organs.

What this mysterious influence is, how it is excited, why it selects the connective tissues instead of other tissues equally exposed to contact therewith, are, at present, questions which we cannot answer. We frequently call it "irritation," and its consequences "irritative hyperplasia," but such futile attempts at "explanation" are not quite in keeping with the present demands of medical science. Let us hope that the busy workers in our physiologic and pathologic laboratories will before long penetrate the mysteries which now surround the phenomena of normal and pathologic cell life.

It is important to sharply distinguish this form of cirrhosis from alcoholic cirrhosis, from which it differs both as to cause and effect. As to cause, in that it is not alcoholic, but lithemic; as to effect, in that it does not destroy the organ involved, by progressive and irresistible cirrhosis, but is content with inducing a well-marked hypertrophy with some degree of induration, which, however, does not destroy the functional power of the organs, although it does abridge their vital capacity. Of course, in this category, I only include cases from which alcohol can be absolutely excluded as an etiologic factor.

(b) *The Neurotic Type.* The contrast between typical examples of these two types is very sharp and well marked. Very many of the so-called "nervous temperaments," "neurasthenics" and "ner-

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vous cranks," as well as most of the cases of "nervous dyspepsia," are in reality cases of the neurotic type of lithemia. The cases are about equally divided between men and women, with, at least in my experience, a slight preponderance in favor of men. Such cases present the same coated tongue, foul breath, and constipated bowels as we find in the former type. Gastric irritation with flatulence and frequently gastric dilatation are generally present. The following case is presented in illustration of the characteristics of nervous lithemia:

Case II. M. P. R., April, 1898, lady, aged 58 years; married, mother of two healthy adult but markedly nervous children. Had cystitis two or three years ago without any tangible cause; is morbidly susceptible to changes of temperature; has had a few slight attacks of rheumatism years ago; looks healthy and well nourished, but says her "nerves are all on a wire edge;" urine produces scalding when it passes, and she wants to "urinate all the time;" urinating does not produce relief, and she "cannot stand, walk or ride without great discomfort."

At my first examination the urine was rather scanty (daily quantity not given), cloudy, highly acid, specific gravity 1030, no albumen, urea 1.75 per cent (Doremus areometer). The cloudiness disappeared on applying gentle heat. After standing a few hours a very copious deposit of lithic acid and oxalate of lime fell down. The microscope showed nothing but a plentiful crop of bladder epithelium. The tongue was coated, the bowels constipated, and the digestive tract was distended with flatus. The patient was exceedingly "nervous," slept poorly, and was quite depressed and worried about herself; so much so that her family had begun to fear that serious nervous or mental symptoms might follow, an opinion which had been somewhat encouraged by an exceedingly capable neurologist.

Under appropriate antilithic, hygienic, and dietetic treatment, coupled with some moral treatment, her symptoms all disappeared, and she resumed her place in society and in church with her wonted vigor and capability. Her symptoms will return again and again, to be relieved in the same way, if at all. If she is treated as a "neurasthenic," and the lithemic factor is overlooked, her symptoms will *not* be relieved, but in addition to "nervousness," she will develop cardio-hepatico-renal lesions of the gravest nature. I ought to add that careful inquiry elicited nothing to indicate that any pelvic lesion or irritation, past or present, could be blamed for her trouble, but that her symptoms were exclusively due to lithic acid toxemia.

(c) *The Anemic Type.* This type is not quite so common as the other two, but it is by no means rare. The patients are mostly women who have been overworked mentally or physically, or both; frequently young mothers, who have borne children rapidly and have been burdened with their care; or saleswomen who are required to stand all day in a constant state of tension and excitement; or ladies who are engaged in clerical work; or school teachers, who find their vocation irksome and exhausting. Of course,

males as well as females may and do have anemic lithemia, since some of the same causes obtain among men, but my own observation demonstrates that female patients are largely in the majority. What is meant by "anemic lithemia?" If a hundred people undertake to do more work than they are able, especially of a kind which makes exhausting demands upon the nervous system, they will all sooner or later "break down," and manifest symptoms which will lead to some kind of a diagnosis and some kind of treatment. They will all show signs of exhaustion and impaired vitality. Some will present manifest symptoms of brain-fag; others will show unmistakable indications of circulatory disturbance, such as tachycardia and hemic murmurs.

Neither of the foregoing groups are likely to claim admission to the lithemic class, but there remains a group of anemics that is unmistakably and indisputably lithemic; a group in which the lithemic toxemia undoubtedly antedated and determined the anemia; a group in which the anemia will resist therapeutic measures unless these measures are combined with or preceded by measures specifically addressed to the relief of lithemia. In this group of cases slight albuminuria will be present, and a few casts, either hyaline or cylindroids, or both; also a few leukocytes, some renal epithelia, a copious deposit of "red pepper," grains of uric acid, and probably crystals of oxalate of lime. The urine will be scanty, intensely acid, of high specific gravity, and will probably cause some cystic irritation and "scalding" when it is voided. The patients will generally be pale, depressed, or misanthropic, and such cases sometimes develop into actual "melancholia," although it rarely becomes permanent. The tongue is coated, appetite poor and fitful, bowels constipated, and the patient is constantly troubled with gastric and enteric flatulence. The following case will serve us as an illustration of the foregoing statements. I might add many more from my office records, but one is sufficient:

Case III. Mrs. C. consulted me April 8, 1898. She is rather tall, spare, blue-eyed and blue-veined, pale and delicate; almost ethereal in her dainty refinement, and has "anemia" written all over her in capital letters. She is 35 years old, weighs 106 pounds, is married and has three children. No serious illness except parturition, and her labors have been quite normal and uncomplicated, both as regards delivery and convalescence. In fact, her life has been singularly free from wear and tear, from sickness or from any other cause, yet she has been subject for several years past to periodic headaches or "migraine;" has suffered constantly from flatulent dyspepsia and consti-

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pation; has had a fickle and whimsical appetite, occasional attacks of hemorrhoids, and all other adjuncts of bad digestion and imperfect assimilation. The menstrual function has always been perfectly performed, save that the flow has been scanty and rather colorless. The urine is scanty, high-colored and rather frequently voided, but without pain. It is highly acid, specific gravity 1027, contains a trace of albumen, no sugar, 1 per cent. of urea, and throws down a copious crop of lithic acid on standing.

The centrifuge throws down "cylindroid" or mucin casts, showing the "catarrhal kidney," according to my peculiar but well-grounded views of renal pathology. I did not count the blood globules, but a hasty examination of some slides easily demonstrated a decidedly abnormal number of white corpuscles. It would seem at first glance that an off-hand diagnosis of anemia, anemia pure and simple, uncomplicated idiopathic anemia, could be made in this case without any danger of going astray. And precisely this diagnosis *had* been made again and again, and persistent treatment, based upon this diagnosis, had been carried out to no purpose, save a temporary appearance of gain which amounted to nothing. But when the administration of hemogenetics is preceded, and preceded long enough, by the administration of antilithics, when the scavenger organs have been made to resume their duties so that elimination is effectually carried on, when the digestive system is brought into a condition which enables it to appropriate both food and tonics, then, and then only, can tonics be expected to produce satisfactory results. In other words, when a case of anemia is of lithemic type and origin, it is futile to treat the anemia as the primary malady; the lithemic factor must be recognized and disposed of before any hemogenetic treatment will result in positive good. Perhaps there is no error more common among us than to overlook the lithemic cause underlying certain cases of anemia; perhaps no class of anemics respond more promptly to appropriate treatment than those which are associated with lithemia. It has often seemed to me that the system fairly bounded back to health and vigor as soon as it was relieved of the incubus of the lithemic poison.

It seems scarcely necessary to say that a pathologic condition showing such a diversity of types cannot be treated by any hard and fast or uniform method. In many instances we are quite too much the slaves of so-called "principles of treatment;" in too many instances we are apt to accept symptoms as "indications for

treatment" with the helplessness of true disciples of Spencer ; but in no instance have we followed the "*indicatio symptomatica*" with such dog-like fealty as in the treatment of lithemia. It has come to be the accepted law that lithemic patients must be dosed with alkalies, drenched with water, flooded with milk, and forbidden to touch meats, no matter what the physical condition of the individual may be. But this is a very absurd practice, which is condemned alike by common sense, science, and experience. Perhaps the blame may be partly due to the fact that many physicians seem to think that the treatment of the uric acid diathesis consists only in the elimination of uric acid, forgetting that a much more necessary thing is to abolish or lessen the production of uric acid. In the treatment of the uric acid habit it is the "*indicatio causalis*" that demands most attention—that is, the attempt to discover and remedy the cause of this sluggish, or it may be aberrant action of the scavenger organs.

It is not the purpose of this paper to treat at length or in detail of the therapeutics and dietetics of lithemia, as I propose relating the results of my experience on a future occasion. But I may properly add, that the plethoric type of the uric acid diathesis requires the vigorous use of antilithics and cholagogues for a considerable time, and their employment in lessened doses, weeks or even months, together with a diminished and carefully selected diet, from which nitrogenous foods are mainly excluded.

In the neurotic type the pathologic condition is largely, sometimes wholly, due to nervous tension, nervous exhaustion, or excess of nervous wear and tear, so that the nervous centers are incapable of carrying on the work of elimination in a proper and satisfactory manner. Hence lithemia ; hence, again, the added increment of nervous irritation due to lithemia, until the nervous system is "jangled out of tune," or, as one of my patients expressed it, is on a "wire edge."

Now, the stock treatment of lithemia for such a case as this would be sheer nonsense, worse than useless. The primary and most imperative demand is the use of measures which will relieve the extreme nervous tension, and place the nervous system in a state of rest. Many patients recover when they are sent to the country for a period of rest and enjoyment. Minute doses of the salts of caffeine are very useful, and neuro-tonics are required. But



the main thing is to take off the patient's harness and let the worn and jaded nervous system rest and recuperate, so that it can resume its legitimate duties in a normal manner.

The anemic type is more difficult to manage. In this the lithemia, like the anemia, is chronic; in fact, is part and parcel of the anemia. Yet it is necessary to restore, in some degree, the power of elimination before much progress can be made toward curing the anemia. The use of antilithics in small doses, judiciously employed, must precede tonics, and I am much given to the use of the caffeine preparations in this group of cases. Iron is badly borne, but phosphate salts and strychnin are very useful. Manganese sometimes serves an admirable purpose.

I regret that I cannot here and now take the necessary time to speak of the treatment of lithemia exhaustively, but this paper has already long exceeded the limit wisely adopted by this Association as a necessary protection against undue prolixity.

70 State street.

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## A CLINICAL STUDY OF SUNSTROKE.

BY EDWARD D. MITCHELL, M.D.

MEMPHIS.

Formerly Resident Physician St. Agnes' Hospital, Philadelphia.

The subject of sunstroke has always been of interest, inasmuch as the mortality is high. It is hoped an accurate study of the symptomatology and treatment may be of value in the more prompt amelioration of the effects of heat on the human body.

During the summer of 1898 I had unusual opportunities for the study of this disease in St. Agnes' Hospital, and in a short time forty-one cases came under observation.

It is here contended that heat exhaustion and insolation are but different manifestations of a morbid process really having the same pathogenesis; and while this is perhaps accepted, we feel that many are too apt to look upon them as separate entities. H. C. Wood has shown clearly that there is a center, perhaps in the medulla, which presides over the manufacture and dissipation of heat, and that heat stroke paralyzes the heat dissipation center, and more heat is produced and less given off, consequently the high bodily temperature. In heat exhaustion the heat manufacturing center is

paralyzed, less heat is manufactured, and the bodily temperature becomes subnormal.

While the cases here reported have to deal with the franker malady, thermic fever, it is hoped, in the analysis of the symptomatology especially and the reference to a few aberrant cases, to make it more plain that a dividing line does not exist. These cases come mainly from the working class, people who are supposedly in a condition of good bodily health and are able to stand the invasion of disease, but owing to greater exposure of the tissues to such high degrees of temperature they are naturally more frequently affected than others whose vocation does not call into play such great muscular efforts and prolonged exposure to heat.

The intimate relation of the two conditions may be shown by the elevation of temperature in heat exhaustion after the normal line has been reached. In practically all the cases of heat exhaustion this secondary rise was noted. It varied from 99° to 103° or higher. A marked example of this is the following case:

The patient was admitted to the hospital in profound collapse with temperature 95.4°. The hot air bath and cardiac respiratory stimulants were administered. In about half an hour the temperature was normal and the patient seemed quite restored. About four hours later the fever began to rise rapidly and in a very short time had reached 107°. The ice bath was resorted to at once, but while in the bath marked signs of dissolution appeared, the patient was restored to his bed, and in ten minutes was dead.

In the primary condition the heat manufacturing center was paralyzed and less heat manufactured; the center reacted from its depression, but being in unstable equilibrium, immediately went into a condition of excitation, with overproduction of heat and consequent hyperpyrexia.

The depression of the heat center was not noted in any of the thermic fever cases, but usually showed a tendency to rise again, though not to its original height. In several cases baths had to be again resorted to in order to control the temperature. In two cases the secondary rise occurred within a few minutes after the temperature had been reduced, and it was necessary to repeat the bath on several occasions before the temperature remained normal.

The number of males treated for both thermic fever and heat exhaustion was 37; number of females, 4. Number of thermic fever cases, 23; heat exhaustion, 18.

As to the length of time the patients were sick before being admitted to the hospital it is impossible to tell. A few were found in their rooms at boardinghouses or hotels, and being unconscious no history could be obtained, but by far the greater number were treated within a short while after the attack. Of the 41 cases 6 died, including one who died while *en route* to the hospital.

The ages of those who died ranged between 28 and 48. Age does not seem to have any special influence upon the death rate.

Probably the most potent cause of the high mortality is the length of time which intervenes between the onset of the disease and the beginning of treatment. The longer the organism is subjected to high degrees of heat, the more the disintegration of the tissues, consequently less vital resistance and recuperative force.

There are few diseases in which the organic degeneration is so prompt, and therefore there is no condition in which prompt and judicious treatment is more imperatively demanded.

The physical condition of the individual seems to be the determining factor as to whether the morbid condition produced be thermic fever or heat exhaustion. Alcoholics and fleshy and powerfully-muscled men seem almost invariably to be affected with the former malady, while women, sparsely-built and aged men are affected with the latter.

There seems also to be a relation between the physical condition and the nervous control of the heart mechanism. In conditions of exhaustion brought about by excessive drains on the system and in those suffering from anemia, the vitality of the center does not seem to be up to the normal, and when exposed to the hot furnace room or the direct rays of the sun, the resistance being diminished the center soon becomes paralyzed and cannot manufacture heat, the normal heat of the body is rapidly dissipated, and consequently there is a fall of temperature. In the first class mentioned the latent heat in the body becomes increased, the center reacts to the stimulation, an increased amount of heat is made and probably less dissipated, and a rise of temperature results.

The mortality of heat exhaustion, according to our experience, is very low. The only case lost was the one who died while *en route* to the hospital. Those who died of thermic fever had been ill for some time before admission, were all deeply cyanosed and showed marked evidence of failing circulation.

The immediate cause of death in all the cases except two was failing circulation producing pulmonary edema. The most plausible theory of cardiac failure is perhaps that of the coagulation of the myosin of the heart muscle and an overfilling of its right chambers and venous system. Two cases died of collapse of the lung. When the edema of the lung was marked the ultimate outcome was almost sure to be fatal, though two cases recovered after this complication manifested itself.

The complications as observed were: convulsions, which were marked in 4 cases, mild in 7; tonic spasm of all the muscles was an accompaniment of the convulsions, it being present in nearly all cases where the temperature was high; cerebro-spinal meningitis, varying in severity, dependent upon the height of the fever and duration of the attack; in all cases with high temperature it was pronounced from the outset; collapse of the lung was noted in 2 cases as mentioned above, and in all probability produced by a pulmonary embolus.

The sequelæ so far as known were practically nil. Many patients when restored to consciousness felt no ill effects from the stroke save a soreness of the muscles. Two cases complained of continuous headache, and when seen about two weeks after being discharged were still suffering from it. If the histories could be traced, no doubt it would be found that many never completely recovered, notwithstanding the fact they left the hospital feeling quite well.

Unfortunately the families of the deceased refused autopsies, so we were unable to note the pathologic findings. When the patients were bled to relieve congestion the blood was dark in color and showed no tendency to coagulate early. Only one case was tested for the reaction and this proved to be decidedly acid in character. Rigor mortis was noted early, and cadaveric lividity marked.

Several cases have been abstracted from the records which are deemed typical of those occurring during the time mentioned. In submitting this report no attempt at a detailed outline of each case is made, as there is a sameness in many of them which would make such an outline monotonous.

Case I. A. L., female, very muscular; caught cold day before and had pain over entire body. On the day of admission she walked two miles in the sun, and on arrival at the hospital the temperature was 110°. She was cyanosed, unconscious, pulse scarcely perceptible. Ice bath given and temperature reduced. A few hours later she

became quite irritable and mind flighty. Two days later she was discharged cured; no uncomfortable sensations.

Case II. J. K., male, aged 49; alcoholic history; temperature  $112^{\circ}$  after being in bath several minutes; pulse very weak, cyanosis, edema of lung, and relaxation of sphincter ani; coma. Ice bath was given and patient bled; intravenous injection of normal salt solution. In forty-five minutes his temperature was normal but he was still unconscious. Heart stimulants were given freely. In about eighteen hours consciousness was regained. During this period it was necessary to strap him to the bed to prevent his wandering about the ward. The following day the pulse was quite good, no edema of the lungs, no headache. In the afternoon he began to fail mentally and had delusions of persecution. It became necessary to confine him to a cell. This condition lasted about eight days, with occasional lucid intervals. The insanity assumed different types during this time. On the day of discharge he was quite restored to health; never complained of headache.

Case III. A. A., male, aged 15; temperature greatly reduced before admission, but still required the bath, and temperature was soon reduced. Later he developed meningitis, with its accompanying symptoms. On the following day he was thoroughly purged. Recovery soon began. When discharged from the hospital he was quite well.

Case IV. S. K., male, alcoholic history. On admission the thermometer could not register the height of temperature. Fifteen minutes after being in the ice bath the mercury was still driven to the top of the thermometer. He was deeply cyanosed, comatose, stertorous respiration and general convulsions. He was promptly bled, and his face cleared to some extent. Patient regained consciousness while still in the bath. Under strong stimulation the pulse became slightly perceptible and the condition so much improved that recovery seemed assured. In about three hours the temperature again began to rise rapidly and the bath was given, but to no avail. Convulsions were most marked; died day of admission.

Case V. D. S., male, admitted in unconscious condition, stertorous respiration, frothing at mouth, pulse very feeble, sphincter ani relaxed. He was placed in ice bath; mercury in thermometer sent to the top, but temperature was soon reduced. Patient was then bled and intravenous injections of normal salt solution given. Consciousness was regained in about forty-eight hours. He had several violent convulsions, and was feeble-minded for about two days. Discharged quite restored; no headache.

Case VI. M. D., male. On admission his temperature was  $112^{\circ}$ ; coma and cyanosis, frothing at mouth, convulsions, pulse absent at wrist, and did not respond to stimulation. Preceding death he had a most violent convulsion, and died six hours later.

Case VII. A. McD., male, aged 17. Heat exhaustion, alcoholic history; temperature  $96^{\circ}$ . Hot air bath and heart stimulants were given and patient was soon restored. Temperature rose to  $102\frac{1}{2}^{\circ}$ , but required no active treatment.

Case VIII. J. M., male, found in his room at hotel. On admission his temperature was  $112^{\circ}$ , and after being in bath about ten minutes he became cyanosed, comatose, pupils were contracted, very rapid pulse, slight convulsions, and contraction of the muscles. He was bled and the cyanosis cleared to some extent. Normal salt solution was given, but no effects were noted from its use. Two hours later collapse of the right lung. He died fourteen hours after admission.

Case IX. Italian, aged 38; admitted five hours after attack. He was cyanosed, comatose, stertorous respiration, very rapid, feeble pulse, contraction of all the muscles, and temperature was  $112^{\circ}$  after being in bath several minutes. Heart and respiration stimulants were freely given, but with no perceptible improvement. He was freely bled in the left arm and intravenous injections of salt solution given in the right arm. In about twenty minutes the pulse was much improved, rate 180 per minute. The condition steadily grew better, and, with the exception of an abscess at the site of injection, recovery was uncomplicated.

*Symptomatology of Thermic Fever.* The patient, while at work, may feel perfectly well, when suddenly there comes a slight attack of vertigo or momentary blindness. Muscular weakness becomes a pronounced symptom, and it is necessary to either seek support from some surrounding object or lie down. There is a feeling of great depression and impending death; respirations are labored, and there is headache of a most distressing character. When the temperature rises rapidly unconsciousness soon comes on, the respirations are finally stertorous, and the body and face markedly cyanosed. The pulse at first is full and bounding, but soon becomes rapid and feeble, and the lungs, from the failing circulation, are edematous. Coma is profound when the fever is high. If the high temperature persists the voluntary muscles are thrown into a state of tonic spasm, the head retracts, the facial muscles contract, and *risus sardonius* appears. The sphincter ani relaxes and extravasation of feces occurs. Convulsions were not so frequent in my cases as one might expect from reviewing the literature on the subject. When they do appear, the severity of the spasm varies from a slight wave-like contraction of the muscles of the face to a general convulsion affecting the entire body. The convulsions and the rigidity of the muscles are undoubtedly due to a cerebro-spinal meningitis. Emesis usually occurs in the severer cases, the vomit being composed of the contents of the stomach which do not seem to be much altered by the process of digestion.

An alcoholic odor could be detected in many of the examinations. When progressive amelioration takes place usually the last symptoms to disappear are the headache and stiffness of the muscles. There is generally a secondary rise of temperature after the normal has been reached, and this lasts for a varying period of time, depending upon the rapidity with which the center regains its tone.

Consciousness does not always return as soon as the fever is

reduced, and it may be many hours before the mind is perfectly clear. Cases of milder type, where the fever is not high, complain of the headache, the stormy condition of the heart, and a sense of oppression.

The symptoms of heat exhaustion are similar to those of shock, and present all its associated phenomena. The lowest temperature observed was 95.4°. This was the only case unconscious on admission. The temperature usually goes above the normal after restoration has taken place.

*Treatment.* The first and most important feature in the treatment of sunstroke is the rapid reduction of temperature, and this is best accomplished by the ice bath. This has been in vogue many years and needs no special consideration. The next feature to which attention is called is the use of the physiologic salt solution in both sunstroke and heat exhaustion. So far as is known this is the first time it has ever been employed in this affection, and especial emphasis is laid upon the great benefit to be derived from its use. In a conversation with Dr. F. A. Packard, of Philadelphia, it was learned that he had in a letter to the editor of the *Medical News*, August, 1896, suggested it as a measure to be used in the treatment of sunstroke, but he has never employed it in a case. At the time of the treatment of these cases this fact was not known to me, nor was it learned till several months had elapsed after my experience with it. So, while its use was original, the matter of priority in its suggestion belongs properly to Dr. Packard. In cases where immediate death did not seem probable, subcutaneous injections were resorted to, while in severer cases intravenous injections were given. The salt solution acts as a stimulant to the circulatory apparatus, refills the vascular system which has been depleted somewhat by bleeding, and further dilutes the remaining toxic elements of the system. It has in several instances aided in turning the tide in favor of the patient.

When the pulse is full and bounding or the countenance cyanosed, or other evidence of cardiac engorgement exists, prompt bleeding will often bring instant relief by relieving the heart and brain of its congestion and removing some of the toxic elements. This procedure should not be resorted to indiscriminately, for at times more harm than good may be wrought by its practice. In an article on sunstroke in Allbutt's *System of Medicine* the author

speaks of this procedure as a "choice of evils," and says as a "general rule it has been abandoned. \* \* \* Subsequent results have not justified it as a general practice." The most probable reason for its abandonment in England and India, for in America it has numerous advocates, was its abuse by surgeons of the British Army while in India. It was their practice to bleed all cases of this disease, regardless of its indications, and naturally the outcome was not so gratifying as its advocates made it appear. Furthermore, many of these cases were treated by douching, ice applications to the head, and such remedies as aconite, quinin, phenacetin, etc. Had the patients been placed in an ice bath, rapid reduction of temperature secured and the depressing antipyretics discontinued, even though blood-letting was practiced too assiduously, better results and lower mortality would, no doubt, have resulted. Bleeding should be resorted to with the same care that it would be in pneumonia. Its use in this disease was also abused and for many years discontinued, but with a clearer knowledge of pathology and physical diagnosis we are better able to note the indications, and its timely use has saved many cases. When the symptoms indicate its use it has always been employed without hesitation and no bad effects were observed. It was never employed as a routine measure.

The salt solution was never used in exhaustion, but I would advise it similar to the method of its employment in surgical shock.

Ice water enemata cannot be too highly extolled, and should be used in conjunction with the bath. Antipyretics were used only in the mild cases where the temperature was not sufficiently high to demand a bath. Aconite was employed with advantage when the pulse was full and the heart in a nervous storm. It not only quiets the heart but also dilates the vessels and bleeds the patient, as it were, in his own system. In the selection of cardiac and respiratory stimulants it is best to first choose those which do not excite the nervous system, but if necessary such stimulants as strychnin or cocain should be used and pushed to their physiologic limit, controlling the resulting spasm with chloroform.

Mental excitement and insomnia yield to the milder somnificients. For the headache, ice caps, bromides and iodides acted well with all.

As to the after-treatment, very little is, as a rule, required. The avoidance of unnecessary exposure to the sun, and, if possible, a cool climate in the summer, should be selected.

Randolph Building.



## A CASE OF PELIOSIS RHEUMATICA (SCHOENLEIN'S DISEASE).

BY I. A. McSWAIN, M.D.  
PARIS, TENN.

May 18, 1889, was called to see Mrs. W., age 35, white, married, mother of three children, the youngest seven years old. Previous health good. Family history showed that father and mother had both died with tuberculosis. Patient had suffered from a prolonged chill on the preceding day, followed by fever and a restless night. Temperature at my first visit 102°, pulse 90; complained of general muscular pains and especially with tenderness of the wrist and ankle joints, about which as well as the phalangeal articulations there was slight swelling. Among the first things observed were petechial or purpuric spots about the face and the wrist, back of the hands and lower extremities. It being a time when we look for malarial disorders in this climate, my diagnosis was rheumatism in a malarial subject, together with a complication of an unknown quantity in the purpuric manifestation.

A calomel purgative was ordered, bisulphate of quinin in four-grain doses every four hours, and to relieve the pain in the joints and reduce the temperature prescribed three grains each salol and phenacetin every four hours. This treatment was kept up for three or four days. The symptoms abated to some degree but did not subside. I then resorted to the use of sodium salicylate, under the impression that the case was probably largely rheumatic. This was given for two days in fifteen-grain doses every four hours. The affected joints in the meantime were bathed freely in hot alkaline solutions and wrapped in flannels saturated with a camphor liniment. This treatment was resorted to frequently during the progress of the case whenever the rheumatic symptoms were dominant. The rheumatic symptoms under this treatment improved, the purpuric spots fading in like ratio, but the fever, while distinct intermissions occurred lasting from eight to sixteen hours each day, would return. Quinin was again administered. The drug modified but did not control the fever.

Two weeks thus passed. The rheumatic condition was confined to the points first invaded, viz., the wrists, ankles, knees, and phalangeal and metacarpal articulations, and over these localities appeared the large crops of purpura. My treatment alternated between antirheumatic and antimalarial or a combination of both, to which was added tr. chlor. iron and arsenic, due attention of course being paid to diet, digestion and the urinary secretion, and suspecting the case to be one of lithemia, I gave soda and potass. bicarb. and lithia water freely.

The appearance of my patient was very deceptive. During the long intermissions of the fever and the subsidence of pain and tenderness of the diseased joints, she appeared to everyone to be convalescent. But this hopeful view of the case would in a few hours vanish, and we renewed the fight, with the rapid rise of fever and acute suffering attending it.

About the end of the fourth week distinct and severe rigors made their appearance. These would come on usually from 3 to 6 P.M., at a time when the temperature would be about 101°. Suddenly the temperature would take a wild flight to 105° within a very few minutes, requiring active bathing, application of ice, and the administration of acetanilid or phenacetin all combined. Had we not used these agencies promptly, together with a hypodermic of morphin to quiet the nervous disturbances, the fever would probably have gone much higher.

Careful examinations from time to time were made of the organs and cavities of the body with a suspicion of pus formation, but none was located. During the fifth and sixth week there was evidently a mild endocarditis, characterized by a feeble pulse and somewhat irregular and difficult respiration. The alkaline treatment was given steadily, together with strychnia, digitalis and nitroglycerin and general supporting treatment and diet.

For ten days or two weeks of the disease there was a looseness of the bowels, tympanites, dry tongue, and the general symptoms of toxemia resembling typhoid fever, with occasional rigors and the rapid hyperpyrexia, with great prostration, so much so that an unfavorable termination was anticipated. But during the tenth week a gradual improvement began which has proved to be permanent, and today, just twelve weeks from date of attack, the patient is rapidly regaining her accustomed health and assuming the duties of the household.

There are many details of symptoms and treatment that have not been mentioned, one of which I desire to allude to, the use of morphia and atropia hypodermatically. This was resorted to on the appearance of the rigors and was used from once to three times a day in doses of  $\frac{1}{4}$  morphia and  $\frac{1}{160}$  atropia, and continued until improvement in the case was manifest and then steadily decreased until it was finally abandoned. I am aware that this is a dangerous practice, as it is so apt to establish the morphin habit, but in this case I am confident the life of the woman had been forfeited without it. The physician, however, when compelled to use this drug for any considerable length of time, must not leave the patient until by decreasing the doses he has securely freed the patient from the morbid craving engendered by its continued use.

The points of interest in this case are chiefly these:

1. The rarity of the disease.
2. The decided intermissions which appeared to be distinctly malarial and which were misleading, as quinin, even in large doses (10 grains repeated every four hours for three or four days), failed to control the paroxysms.
3. The rigors, followed by a sudden hyperpyrexia, which persisted in spite of every sort of treatment for ten days or two weeks.
4. The deceptive intermissions in which every symptom abated sometimes for a whole day, to return again with great severity.
5. The apparent typhoid condition, lasting about ten days, during the sixth and seventh weeks.
6. The final and complete disappearance of all symptoms, and a return to health under so many unfavorable conditions.

## A CASE OF PAPILLOMA OF THE SOFT PALATE.

BY RICHMOND McKINNEY, M.D.

MEMPHIS.

Laryngologist to the East End Dispensary.

While it is true that papilloma of the soft palate, and especially the uvula, is the commonest of all true tumors of the nose and throat, they are still infrequent enough to be called clinical curiosities. That they are, after all, not so very common, is made evident when we learn that even Jurasz, in his vast clinical experience, has seen only fourteen cases of this nature.

In textbooks we are told that these growths vary from a pin's head to a cherry in size, and that the diagnosis is easy from the gross appearance of the tumor. However, we should not rest easily satisfied with a macroscopic diagnosis in our cases of suspected papilloma, for there are several instances on record where mistakes have been made as to the clinical nature of the tumor removed. The most notable instance of such an error in diagnosis is, perhaps, that of Dr. Lefferts, who, at the 1889 meeting of the American Laryngological Association, reported a case in a girl of 16 as typical papilloma. No microscopic examination was made. The growth recurred after removal and was again removed by Dr. Simpson, who, after a microscopic examination, reported this as an instance in which a benign neoplasm had degenerated into a sarcoma. But Jonathan Wright states (*American Textbook of Diseases of the Eye, Ear, Nose and Throat*) that it is evident that the growth was malignant from the first. A similar mistake, occurring in the practice of Sir Morrell Mackenzie, is reported by Lenox Browne.

The case I have to report is as follows:

The patient, a commercial traveler, aged 32, was referred to me by Dr. Edwin Williams, of Memphis, for a throat examination. On first inspection, while examining his naso-pharynx, I noticed an irregularly-surfaced, pinkish white growth, about the size of a pea, attached to the soft palate at the base of the uvula. This was removed with a pair of curved scissors and a long nasal dressing forceps. On closer inspection the tumor was seen to be of the peculiar raspberry-like structure characteristic of papilloma. Its nature was further confirmed by the microscopic examination to which it was submitted. The microscopist's report is here appended:

"Dear Doctor—I send herewith a section of the uvular growth, which, as you can easily see, is a hard papilloma. The most of the picture is in horizontal section, but one process is well seen in vertical section, showing the papillary ingrowth of the fibrous stroma. Some very large vessels are seen, entirely out of proportion to the size of the tumor. Yours truly, (signed) WM. KRAUSS."



Illustrating Dr. McKinney's case of papilloma of the soft palate.

This case of papilloma was of peculiar interest to me, inasmuch as I was recently enabled to add to the literature of nasal papilloma by reporting (*New York Medical Journal*, March 4, 1899) what was perhaps the fourteenth authentic case of this kind on record.

Porter Building.

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SUMMER DIARRHEA OF INFANTS.—McClanahan (*Jour. Am. Med. Assn.*, August 6, 1899), in a very good paper says he finds the diseases grouped under this name to occur almost exclusively (97 per cent.) in bottle-fed children. The exciting cause is acute indigestion due to improper diet, usually an excess of albuminoids. The high temperature in summer favors the development of milk bacteria. In very acute cases the post-mortem shows little lesion, which indicates that the cause of death is due to the multiplication of bacteria and absorption of resulting toxins; these latter may be in milk before feeding. Inflammatory changes are due to staphylococci; there is always a mixed infection. The treatment consists in stopping all food, using lavage and intestinal irrigation; calomel in small and repeated doses until the stools are spinach-green; bismuth as an astringent; Dover's powder for serous discharges. The food, after elimination, may be panopepton, liquid peptonoids, Jacob's mixture of barley water, egg albumen, with whisky or brandy, and mutton broth. In the acute form, after elimination, a hypodermic injection of morphin and atropin is useful. Iced water containing a trace of nitric acid will replace the lost fluid, and in collapse hypodermoclysis of "normal" salt solution is recommended. Fever is controlled by an ice cap.

## CORRESPONDENCE.

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MEMPHIS, TENN., September 5, 1899.

*Editors Memphis Lancet :*

GENTLEMEN—In answer to Dr. Goltman's comments in the September number of the MEMPHIS LANCET on the "Communicability of Epidemic Cerebro-Spinal Meningitis," I desire to say that my reason for requesting Dr. Goltman to lay aside his textbooks and teachings of authorities and make an individual clinical study of the cases of cerebro-spinal meningitis which he saw during the epidemic of '98 and '99, was that he might sit as an impartial judge and render an unbiased decision in the case, for I know we are all susceptible to the influence of the teachings of our favorite authors.

The teaching of authorities on this disease is antagonistic to my clinical experience during the epidemic of '98 and '99.

For instance, Flint says the disease rarely occurs before the seventh year. J. L. Smith says the greatest number of cases occur between the fifth and fifteenth years. I saw cases occur in persons from birth to the seventieth year, although most of the cases which I saw were in children two and three years of age.

Hirsch, whom Dr. Goltman quoted in his first paper, Pfeiffer and Heiberg teach that persons of robust, vigorous constitutions furnish the greatest number of cases. While we have no positive evidence that cerebro-spinal meningitis existed before 1803, Livinus Baudrinus describes a disease in 1584 with symptoms similar to those of epidemic cerebro-spinal meningitis, which he said seized by preference the vigorous youth. This certainly was not my experience with the disease during the epidemic of '98 and '99. I stated in my last letter that all of the cases which I saw occurred in persons whose vitality had been lowered by bad hygienic surroundings and want of proper food.

Lemoin, who states that cerebro-spinal meningitis is both infectious and contagious, Dr. Goltman and other authorities would have us believe this a contagious disease—which is a mere hypothesis, as they can bring no proof to bear out the assertion. If this disease is contagious and has a preference for the healthy and the robust,

as we have been taught, I do not see why I did not contract the disease—for I was exposed to it daily, and took none of the precautions that I would take in handling a contagious disease. Born immune, I suppose.

Before closing this paper I wish to pay my respects to the micrococcus family; for we are taught that each and every member of this numerous family takes a hand in the causation of cerebro-spinal meningitis. Cornil and Babes say that it is caused by the lancet-shaped cocci of Pasteur, Mills and Combas the pneumococcus of Frankel, Obeke the chain cocci, another the streptococcus of erysipelas, and others the diplococcus intracellularis meningitidis. The author of this paper says that it may be due to "any old" coccus, and last but not least, Stiénon charges the crime to the gonococcus of Neisser. There now, poor Mr. G. Coccus; I thought he had sins enough to account for without charging him with this crime. So we see that each authority charges the deviltry done by this disease to the account of a different member of the coccus family.

Summing up the teaching of authorities on epidemic cerebro-spinal meningitis, in treating this disease we have to deal with—1, an infectious and contagious disease; 2, a disease which has a special affinity for the vigorous and robust; 3, a disease in which any member of the micrococcus family may take a hand in the causation.

These things being so, when the micrococcus family went on the warpath in Phillips county, Ark., in the fall and winter of '98 and '99, it is to me an unanswerable riddle why they ignored the vigorous and robust for whom they have a special affinity, and attacked the poor unfortunate whose constitution had been weakened from bad hygienic surroundings and lack of proper food.

If Dr. Goltman can lift the veil from this riddle, I shall be glad to hear from him.

Very truly, JAS. L. BARTON.

335 Main street.

# THE MEMPHIS LANCET.

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## EDITORIALS.

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### THE STUDY OF THE ETIOLOGY OF MALARIA.

The earliest writers in medical history recognized the connection between exposure to miasmatic exhalations and certain paroxysmal fevers, associated with tumefaction of the viscera and the symptom-complex which constitutes what is known as "malaria." From the writings of Hippocrates we learn that he represented the hydric theory of transmission, since he taught that the drinking of marshy water was the cause of the disease. Galen, on the other hand, believed that a "marsh poison" contaminated the air, and its inhalation produced the disease, hence he represented the aerial theory of the transmission of malaria. Following medical history down to nearly the present time, the belief in a contagium vivum strove with the idea of some vague, indefinite miasma for the mastery. Strange to say, even after the discovery beyond doubt by Laveran, in 1881, of the specific pathogenic agent of malaria, the controversy between the adherents of the hydric and aerial theories of transmission remains one of the greatest *casûs belli* of epidemiologists.

Doubtless the discovery of "Chinchona" bark in 1680, and more especially its alkaloid in 1820, rendered the finding of the cause and mode of transmission of malaria less imperative than if we were powerless against its ravages, and even after the discovery of

the plasmodium our complete ignorance of its life history outside of the human body left a hiatus in our knowledge of this organism, and retarded further progress. We now find, rather unexpectedly, this line of research initiated in a country not especially noted for original work in this field, and in a manner which seems to leave no doubt as to the ultimate success of the work.

For ages some connection between the mosquito and infection by malaria was believed to exist, but the very discovery of the plasmodium rendered such a hypothesis apparently untenable, as a dual cause of the disease was not to be thought of. Manson, finding that the flagella of plasmodia developed only after the blood had been drawn for some time, argued that this must be a stage in the extra-human existence of the organism; no plasmodium with flagella had ever been found in freshly-drawn blood. Since this flagellated body had no apparent apparatus for penetrating vessel walls, it was manifest that some other agency was needed to introduce the hematozoon into the human body. The inference that this was done by some stinging insect was natural, and since the mosquito was the parasitic insect feeding on man in malarial regions, he looked upon this as the solution of the problem. The extra-human life cycle being unknown, and search in marshes for the same having always been uniformly unsuccessful, Manson interested Surgeon-Major Ross, stationed in India, in the matter, and this investigator, with a skill which borders on the impossible, dissected the stomachs of mosquitoes which had fed upon malarial subjects. He found that 70 per cent. of the crescents in the imbibed blood had developed flagella, and in the walls of the stomachs of such mosquitoes he found bodies which appeared to be plasmodia, which had penetrated there and then become encapsulated.

By studies upon birds infected with similar bodies, Ross and MacCallum arrived at results which can be summarized as follows: The organism taken into the stomach of the mosquito from an infected bird leaves the blood cell, throws out flagella, which become separated, wander about in the blood plasma until they meet another organism, which they enter and fertilize. The fertilized organism then acquires the power of penetrating the stomach wall, where it becomes encysted and develops a large number of rod-shaped, spore-like bodies; these can then develop into a new generation of blood parasites.



Ross found in the poison glands of mosquitoes fed upon infected bird blood great numbers of these rod-shaped spores. It follows, then, that the mosquito, unlike the Texas fever tick, can inoculate another individual in the same generation, the latter only transmitting the infection through its progeny. The infection by a new brood of spores, instead of by transferring the mature parasite, constitutes a more certain infection, more individuals being thus transmitted. This also more reasonably accounts for the definite period of incubation, corresponding to the time required for the evolution into the mature human blood parasite.

A cablegram recently sent by Ross to his Government from Africa, to the effect that he had found the "malaria mosquito," leads to the inference that he found the same or similar bodies in human malaria.

Smith's work with Texas cattle fever is so analogous that it gives, in his words, "moral support" to the mosquito theory. Smith argues that, assuming the introduction of the malarial parasite into the human body, when the conditions are favorable, i. e., if the infected individual lives near standing water to which mosquitoes may speedily repair and lay their eggs, and if the individuals to be infected are readily accessible to the young brood, the disease is likely to take root and become endemic. If the parasites protected over winter in infected patients are abundant, the disease may spread, unless the insects are suppressed; they are harmless in regions still free from malaria. Smith further infers that the mosquito can transmit the "germinal rods" to their ova, like the Texas fever tick.

Bignami, Grassi, Koch, Bastianelli, and others are carrying out experiments in Italy which thus far corroborate the results of Ross' work with bird malaria.

The presence of crescents and other resisting forms of plasmodia thus gains a new significance. They may carry over the infection to the next year, and they can also serve to perpetuate in the mosquito and there multiply. We are here in the presence of a revelation which may result in the eradication of malaria becoming something more tangible than a "pious wish."

## REPORTS OF SOCIETIES.

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### PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

*Regular Meeting, September 5, 1899.*

The President, Dr. B. F. Turner, in the chair.

Present were Drs. Turner, Alfred Moore, McKinney, Porter, Buford, Krauss, Barton, F. A. Jones, Ellett, Black and Williams. Visitor, Dr. W. M. Ball, of Mississippi.

*The President* read a paper on *Neurasthenia*. Until 1869 the neuroses were classed together, whether of hysterical, toxic or other origin. Baird then described a condition which he termed, and which is now known as, neurasthenia. It occurs between the ages of 20 and 50, affects both sexes, all races, especially the emotional ones, and is common in high altitudes. It is predisposed to by heredity, a mercurial temperament, excesses, trauma, exhausting diseases, emotional shock, and possibly excessive venery. Hodge showed that changes occur in active ganglionic cells analogous to those found in secreting glands, and proved that nervous energy is derived from chemical metabolism. This is the underlying pathology of neurasthenia, viz.: cell exhaustion from overactivity. The symptoms are deficient, but never lost, function, and manifest themselves in every tissue and organ of the body. Headache, backache, visual fatigue, tinnitus aurium, muscular weariness, gastro-intestinal, circulatory, menstrual and mental disturbances. There may, in the male, be emissions and sexual impotence. Inability to concentrate the mind, emotional irritability, with a tendency to pass to graver mental disturbances, are seen. A case was mentioned which passed from neurasthenia to hysteria and thence to incurable mania. The onset is insidious, the development slow, with remissions, and the course chronic. The diagnosis is to be made from hysteria, hypochondriasis and incipient organic disease. The treatment is to be conducted on hygienic and physiologic lines, with due regard to the importance of rest.

*Dr. G. G. Buford* said that the value of Hodge's studies could not be overestimated. They proved chemical changes to be present during nervous activity, and this is the key to functional nervous disorders. Excessive stimulation ultimately results in atrophy. He

does not believe much in the influence of heredity. He mentioned a case of neurasthenia which passed to melancholia, then acute mania, with recovery and a continuance of the neurasthenia.

*Dr. E. C. Ellett* said that the neurasthenic with eye symptoms derived little benefit, as a rule, from eye treatment. No glasses enable them to read comfortably, or relieve their eye pain, headache and other phenomena found in other cases to be due to eye strain. Some cases, however, have their origin in eye strain, and in these eye treatment will relieve, not only their eyes, but their remote symptoms. Regarding the diagnosis, the eye symptoms of neurasthenia are not characteristic, while in hysteria the hysterical amblyopia, reversal of form and color limits of the field of vision, and conjunctival anesthesia, are quite characteristic. The pupillary, perimetric, and optic nerve symptoms of organic disease are well recognized, and aid not only in diagnosis but in localization of the lesion. In regard to the throat and nose, we recognize hay fever, aphonia, and *globus hystericus*, as sometimes of neurotic origin.

*The President*, in reply to a question from *Dr. Barton*, said he could not diagnose between neurasthenia of emotional origin and "masked goitre," i. e., exophthalmic goitre, without goitre or exophthalmus. In reply to a question from *Dr. Krauss*, he does not venture to be positive as to the diagnosis between neurasthenia and early organic disease until reactions of degeneration can be demonstrated. He does not think the effects of overstimulation of the nervous centers are permanent, but more like a temporary exhaustion. He does not find the application of *Weir Mitchell's* rest cure practicable, but obtains rest by a change of occupation and surroundings, and avoidance of mental worry.

*Dr. Ellett* made a report of *Two Months' Eye Service at the City Hospital*.

(a) **Cataract Extractions.** Eight operations had been done with eight successes. He prefers the combined to the simple method, and six of the cases were done in this way, i. e., with iridectomy. *Holocain* is the preferable anesthetic, and is now used exclusively in cataract operations by *Knapp* and others of large experience. No bandage is used, but a light dressing of gauze and cotton is held in place by strips of adhesive plaster. The patient is confined to bed till the corneal wound has closed.\*

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\* These cases will be reported in full, with others, later.

(b) In enucleations, for the purpose of securing the best stump for an artificial eye, Mules, of Manchester, performs evisceration, and places a glass sphere in the cavity of the sclerotic. Morton has devised a method of placing the sphere in Tenon's capsule and uniting the muscles and conjunctiva over it. This method has been used by Dr. Ellett, with Bryant's perforated aluminum spheres instead of the glass balls. By using silk to unite the muscles, instead of catgut as Morton does, there is not much probability of the sphere becoming displaced. The sphere remains in the tissues permanently, and an artificial eye placed over it has a full and natural look and very considerable motion. In one case Dr. Ellett has observed the sphere in place after two years, and causing no inconvenience.

Dr. W. J. Lane was elected to membership.

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## PROGRESS OF MEDICINE.

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**MANAGEMENT OF PREGNANCY COMPLICATED BY ABDOMINAL TUMORS.**  
Rufus B. Hall (*Jour. Amer. Med. Assn.*, Sept. 2, 1899) draws the following conclusions :

The ease with which some cases recover, following removal of ovarian tumors, should not mislead us into the belief that there is no danger from abortion and its complications following the operation. Abortion at this time is attended with more risk than at any other and not a few of these patients die afterward, yet this fact should not deter us from advising and making the operation in all those cases where it is deemed advisable to do so after all the facts have been placed before us, even if the case is a desperate one.

An operation promises something. We should not refuse to operate on anyone where there is the slightest chance for recovery, if there is no chance for recovery without an operation. It is a duty that we owe to our patients to operate and give them the only chance, even if that is but one in a hundred.

I would advise operation for the removal of ovarian cysts in all cases where the tumor is small and fixed in the pelvis below the uterus; where the tumor cannot be lifted out of that cavity.

We should operate in all cases where there are any complications in the tumor itself, such as twisted pedicle, or ruptured cyst.

Patients with inflammation in the abdomen, caused by the tumor, should be operated on.

I would hesitate to advise operation during the pregnant state for an ovarian tumor of moderate size that was above the uterus and where the tumor itself was too large to occupy the pelvic cavity, if the woman had not suffered from the tumor and there was no indication of any complication.

In fibroid tumors of the uterus, I would advise operation in all cases where the tumor occupied the lower segment of the uterus and it was in such a position that it would interfere with or prevent delivery at full term. The question as to when the operation should be made, as to the period of gestation, must depend on each individual case.

If the woman has passed four or five months of gestation and it is possible to carry her to or near the full term of pregnancy, the question as to saving the child must be discussed.

If the patient can be placed in good surroundings and operated on just before the full term, or at the time of the commencement of labor, we could save both mother and child. But in many of these cases seen at three and one-half to five months of gestation, their condition becomes so intolerable that we are obliged to sacrifice the life of the child to save that of the mother. Their condition will not tolerate deferring the operation even for a few days. The long-continued pressure of a solid tumor in the patient's pelvis, damming back the urine on the kidney by pressure on the ureters, as it must in many of these cases, should have much weight in favor of immediate operation. Even if the patient should go to the full term of gestation and then be subjected to an operation, she would be in great danger of afterward dying from urinary complications. This is more likely to occur if the tumor develops in one of the broad ligaments; but, unfortunately, there is no choice in the matter in many of these cases; we must operate and accept the situation if we are to do anything at all for our patient. A man would be a coward to temporize in the face of such difficulties.

The question of what operations should be made should be left with each individual operator to use his best judgment at the time of the operation. The question of enucleation of fibroid tumors

and saving the uterus is being favorably discussed by many operators, but whether or not that operation would often be selected in the pregnant state remains to be seen.

**THE CHOICE BETWEEN THE CÆSAREAN OPERATION AND ACCOUCHEMENT FORCÉ AFTER THE MOTHER'S DEATH.**—It is just possible that the advances that have been made in recent years in the technics of the Cæsarean operation, whereby it has almost been robbed of its fatality, have led to such a degree of readiness to resort to it in the case of the living woman, and a consequent utter lack of hesitation to perform it on the dead, as may prove disastrous under certain circumstances, unless special precautions are taken. The danger was lately set forth somewhat graphically by Dr. Colle, at a meeting of the *Société centrale de médecine du Nord* (*Echo médical du Nord*, June 25th). Within a week of her expected confinement a woman fell dead in his presence, with symptoms of pulmonary embolism. He went home hastily to obtain the instruments necessary for the Cæsarean operation. It was fifteen or sixteen minutes before he got back to the dead woman. Then he rapidly incised the abdominal wall and that of the uterus, tore open the fetal envelopes, and was fortunate enough to extract a child which, although cyanotic, soon began to breathe and was saved.

But an ugly rumor began its rounds; it was whispered that the doctor had killed the mother. This set M. Colle to thinking, and his reflections were not pleasant. He asked himself what material proof he should offer that the woman had actually been dead at the time of the operation in case he was accused; and prosecutions of physicians were so easily set on foot! At the meeting he mentioned these reflections and cited instances of women supposed to be dead who had regained consciousness during the Cæsarean operation. He was inclined, therefore, to prefer *accouchement forcé* in cases of the supposed death of the mother, for it could be performed at once, and the woman, if not really dead, be saved as well as the child, while the *accoucheur's* reputation was safe also.

M. Oui agreed with M. Colle, that after the mother's death *accouchement forcé* was to be preferred to the Cæsarean operation, at least in private practice, for in the cutting operation the same precautions should be observed as if the mother were living, and that might really be the case. He cited Tarnier as having called

attention to the very important consideration that it was always necessary to lose more or less time in obtaining the consent of the family to the performance of hysterotomy, whereas one could proceed at once to extraction *per vias naturales* and incur no reproach. M. Oui would use the forceps if he happened to have the instrument with him, otherwise there was but one resource—podalic version.

Perhaps the obstetrician of the present day may fairly be expected to go to a case of confinement prepared to perform the Cæsarean operation at short notice and with all the attention to detail that it requires, but certainly it cannot be required of him that he should be thus ready in the case of a woman who, being in apparent health, falls dead in his presence while he is making an ordinary professional call on another member of the household, and is then ascertained to have been pregnant with a viable child—and this was M. Colle's experience. But the physician always has his hands with him, and can proceed instantly to dilate the cervix, rupture the membranes, turn by the feet, and extract—and that, too, without asking anybody's permission.—*Editorial N. Y. Med. Jour.*, Aug. 5, '99.

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OPERATIONS IN GASTRIC ULCER.—Bidwell (*Am. Jour. Med. Sci.*, Sept., '99) enumerates the following indications for operation :

1. In all cases of perforation at the earliest possible moment; also in subphrenic abscess.
2. In cases of hemorrhage, (a) when there is continual oozing of blood, especially if the stomach be dilated, and (b) in cases of repeated severe hemorrhage.
3. In cases where there is severe pain and vomiting unaffected by treatment, and which is producing progressive emaciation.
4. In cases of dilatation of the stomach from contraction within or from adhesion outside the stomach.

The operations to be performed are: in class 1, laparotomy and suture of the ulcer; in class 2, gastrostomy and suture of the ulcer, with a purse-string suture, combined with gastro-enterostomy; in class 3, gastro-enterostomy, in order to give physiologic rest to the ulcer; and in class 4, either gastro-enterostomy, or, if the pylorus be affected, pyloroplasty or pylorotomy.

The results are much more favorable than formerly; complete tables of statistics are given.

**THE ETIOLOGY OF YELLOW FEVER.**—In the report of the Commission of Medical Officers, Marine Hospital Service, detailed by authority of the President to investigate the cause of yellow fever, the following conclusions are drawn :

1. That the microörganism discovered by Professor Guiseppe Sanarelli, of the University of Bologna, Italy, and by him named "bacillus icteroides," is the cause of yellow fever.

2. That yellow fever is naturally infectious to certain animals, the degree varying with the species; that in some rodents local infection is very quickly followed by blood infection; and that while in dogs and rabbits there is no evidence of this subsequent invasion of the blood, monkeys react to the infection the same as man.

3. That infection takes place by way of the respiratory tract, the primary colonization in this tract giving rise to the earlier manifestations of the disease.

4. That in many cases of the disease, probably a majority, the primary infection, or colonization in the lungs, is followed by "secondary infection" or a secondary colonization of this organism in the blood of the patient. This secondary infection may be complicated by the coinstantaneous passage of other organisms into the blood, or this complication may arise during the last hours of life.

5. That there is no evidence to support the theory advanced by Professor Sanarelli that this disease is primarily a septicemia, inasmuch as cases do occur in which the bacillus icteroides cannot be found in the blood, or organs in which it might be deposited therefrom.

6. That there exists no causal relationship between the bacillus "X" of Sternberg and this highly infectious disease; and that the bacillus "X" is frequently found in the intestinal contents of normal animals and of man, as well as in the urine and bronchial secretion.

7. That, so far as the Commission is aware, the bacillus icteroides has never been found in any body other than one infected with yellow fever; and that whatever may be the cultural similarities between this and other microörganisms, it is characterized by a specificity which is distinctive.

8. That the bacillus icteroides is very susceptible to the influences injurious to bacterial life; and that its ready control by the process of disinfection, chemical and mechanical, is assured.



9. That the bacillus icteroides produces *in vitro*, as well as *in vita*, a toxin of the most marked potency; and that, from our present knowledge, there exists a reasonable possibility of the ultimate production of an antiserum more potent than that of Professor Sanarelli.

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A CLINICAL STUDY OF TWENTY-FOUR CASES OF PARALYSIS AGITANS, WITH REMARKS ON THE TREATMENT OF THE DISEASE.—Joseph Collins and L. J. J. Muskens, (*New York Medical Journal*, July 8, 1899) have made some original observations. Although paralysis agitans is classified as a functional nervous disease, pathologic changes are almost invariably found in the central nervous system after death, especially if the disease has existed for a long time. The relative frequency was 1.3 per cent. of all cases coming to the clinic. Nearly half were of the Irish race, though the Irish women constituted only one-twelfth of the total number. The age of the patients corresponded to that of most writers. The heredity however differed, as there was a straightforward history of direct inheritance in four cases. In regard to occupation, "neither the mentally harassed nor the physically overworked have a special liability; workers out of doors develop the disease as frequently as indoor workers." The alleged causes were classifiable under the head of psychical and emotional trauma. Only two were hard drinkers or smokers, and in none was there a history of syphilis. The most striking feature of the personal history of all these patients was that they had lived temperate, wholesome lives, free from undue strife or any uncommon burden. The most important factors in the etiology were age, sex, nationality, morality, violent emotions, heredity, and infectious diseases. The course of the disease is uniformly progressive, in contrast to disseminated insular sclerosis, with which, as some still maintain, it may be confounded. The disease lasts from five to thirty years; as a rule the subject becomes asthenic and dies from an intercurrent infection.

The authors do not advocate mechanical treatment; baths may be of use, or cool affusions, followed by friction. The drugs of use are: hyoscyamus, duboisin, indian hemp, opium, hematogenous agencies, and occasionally gelsemium and veratrum viride. Salicylates and bromides are condemned. The milder hypnotics may be used, but later in the disease opium only gives relief.

**THE OCULAR AND ORBITAL SYMPTOMS OF LESIONS OF THE FRONTAL SINUS.**—Robert Sattler (*Medical News*, August 5, 1899) says that while the clinical characteristics and indications for surgical treatment in acute disease of the frontal sinus cannot easily be misinterpreted, chronic lesions, which are more frequent, present meager symptoms and considerable difficulty of diagnosis, since they may run an almost latent course. Retention of purulent material, granulation tissue and bone hypertrophy are the pathologic conditions found. Many cases of caries of the orbit in strumous children are expressions of frontal sinus disease. Unilateral, diffused or localized orbital tenderness is an early symptom, giving way to painful swelling of the periosteum and bone. Neuralgic explosions, often without any other local symptoms, or general headache, may occur. Nasal symptoms are often absent. Absorption or inspissation of an empyema may occur, or a spontaneous evacuation, either externally or into the nose. Severe neuralgic seizures are rather common in cases of bone hypertrophy. The accumulation, in purulent cases, usually discharges into the orbit, whence it may burrow extensively. Serous infiltration of the lid interferes with the levator and frequently causes ptosis, and sometimes proptosis and lateral and downward displacement of the ball. Conjunctival engorgement, from pressure on the veins, is common. The exophthalmos varies from day to day.

In treating this condition the intra-nasal route is now abandoned for the external attack with mallet and chisel, which the author prefers to drills, etc. \_\_\_\_\_

**ANGIONEUROTIC EDEMA AND ALLIED CONDITIONS — REPORT OF SEVEN CASES.**—In the paper of the above title B. Onuf (*Med. Record*, August 5, 1899) gives us an analysis of seven cases. The author is inclined to include under the general head, many disorders. Thus angioneurotic edema of the skin is allied to urticaria and neurotic fugitive erythema. All three have in common the circumscribed character, their usually sudden paroxysmal coming and going and reappearing, and their causation by disturbance of vascular innervation. Urticaria is an affection of the superficial skin, while angioneurotic edema is an involvement of the subcutaneous tissue. Angioneurotic edema of the viscera may be active or passive. The latter is evidenced by anorexia, dyspepsia and consti-

pation ; the former by a sensation of pressure in the chest, dyspnea, followed by nausea and by burning and tearing pain in the region of the stomach ; colic-like pains may be present, followed by the expulsion of muco-fibrinous casts of the intestine (enteritis tubulosa). Finally, there may be marked psychic symptoms.

The etiology is usually a neuropathic or psychopathic taint. The differential diagnosis is to be made from mechanical local edema, hydropic edema, the white and blue edema of hysteria, myxedema, insect bites, and erythema nodosum. The treatment promising most is one directed toward strengthening and tranquilization of the nervous system.

There is doubtless a close connection between these disorders and angina pectoris, asthma, disorders of menstruation, lithemic conditions, and other disturbances of a vascular or visceromotor or secretory innervation—in fact, a general disorder of the vegetative functions of the nervous system. This taint might lead to the symptom-complex known as Basedow's disease.

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GUNSHOT WOUNDS OF THE CHEST IN THE SPANISH-AMERICAN WAR. Greenleaf (*N. Y. Med. Journal*, Aug. 26, '99) says that the indications for treatment are two-fold :

First, to guard against infection at this time, when conditions are so favorable for that very serious complication, and second, to check hemorrhage as soon as possible ; for a collection of blood in the pleura or a hemothorax in the lung is a most fertile ground for saprophytic invasion, and acts itself as a foreign irritant. The first is met by promptly cleansing and applying the first-aid sterile dressing, and using special precautions during convalescence to prevent exposure and infection that would lead to any general inflammatory condition of the lungs. We know that a bronchitis, pneumonia, or any inflammatory condition of the lungs, presents a favorable soil for the ever-present microorganisms and soon breeds them into their more virulent form, thus greatly favoring the eventual formation of empyema or lung abscess, especially where there has been bleeding.

The second indication is met by making it thoroughly understood, especially among soldiers themselves, that all chest wounds are serious, and that the patient must be kept absolutely quiet and passive, avoiding talk and active motions of all kinds, and trans-

ferred with the gentlest care, preferably on a litter, over rough ground. The surgeon should employ the usual methods of controlling internal hemorrhages, as keeping the injured side at rest by strapping and the use of opium, the administration of internal astringents, local use of cold, enforced use of bedpan, etc.

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SOME NOTES ON THE TUBERCULIN TEST.—Otis (*Journal of Tuberculosis*, July, '99) summarizes as follows:

1. The tuberculin test indicates early tuberculosis by a general reaction in the majority of cases, before it can be detected by other methods, the X ray excepted.
2. The dose to accomplish this is from 5 to 10 milligrams of Koch's original tuberculin.
3. No injurious results occur from tuberculin in these doses.
4. Proved tuberculosis in a more or less advanced stage may fail to give a general reaction with doses of from 10 to 12 milligrams.
5. Syphilis gives a reaction in an undetermined proportion of cases.
6. A non-tuberculous person may give a general reaction with a dose above the maximum used in the test.
7. The reaction may be delayed from 6 to 24 hours.

These rules are to be observed in making the test:

1. Always use the same tuberculin and of standard strength.
2. Use aseptic precautions in giving the injections.
3. Make the injections deep into the muscles.
4. Keep a 2, 3 or 4-hourly chart of the temperature if possible, beginning 24 hours before the injection.
5. Allow several days to elapse before repeating the test.
6. In early cases, depend upon the general reaction; in later cases, if the general reaction is wanting, carefully look for the local.

(V. Ruck says the reaction in some syphilitics indicates local latent tuberculosis in these, and confirms the delicacy of the reaction.)

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JUSTUS' TEST FOR THE DIAGNOSIS OF SYPHILIS.—Cabot and Mertins (*Boston Med. & Surg. Journal*, April, 1899) report a series of observations upon this sign. It is to be remembered that this consists in the sudden fall in the hemoglobin percentage of from 10 to 20, after a mercurial inunction or injection. The results of the

observations of Cabot and Mertins are, in the main, confirmatory of the claims of Justus. All the cases of syphilis reacted strongly, and in 33 control cases only one positive reaction occurred. The results given are: 1, positive reaction in seven cases of syphilis; 2, negative reaction in thirty-two control cases of diseases other than syphilis; 3, positive reaction in one case of chlorosis.

The seven active syphilitic cases lost an average of 21 per cent. of hemoglobin after a single inunction; in one case of malaria, in which a chill occurred just after the inunction, there was a loss of 10 per cent.; and in the case of chlorosis the loss was 13 per cent.

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SOME SALIENT POINTS IN THE TREATMENT OF HIP DISEASE.—McKenzie (*Medical News*, August 5, 1899) summarizes as follows:

1. Hip disease is a local manifestation of a constitutional disease.
2. Early operative treatment is seldom justifiable.
3. When softening can be determined the surgeon should operate and obey indications, observing all care not to needlessly injure the mechanical integrity of the joint.
4. In the subsequent management of the wound asepticism and antisepticism must be carefully observed.
5. From the earliest moment efficient protection for the joint should be secured and constantly maintained by a well-fitting mechanical appliance.
6. A proper splint should fulfill two indications, i. e., secure rest for the affected joint and prevent deformity. No effort should be made to employ the splint as a crutch; ordinary crutches should be used. In the adjustment of the splint the knee should be slightly flexed.
7. Constitutional treatment is indicated as in other tubercular affections. Great emphasis should be laid on obtaining the freest exposure to direct sunshine and fresh air. Free use of iodoform is a valuable adjunct.
8. After excision a perfect recovery never follows, because the mechanical integrity of the joint is not preserved.
9. Following mechanical and constitutional treatment complete restoration of function is sometimes obtained.
10. Even when breaking down of tissue occurs which necessitates incision, there is sometimes a perfect restoration, and frequently a highly useful return of the joint function.

ON TWO CASES OF TRAUMATIC RUPTURE OF THE COLON, ETC.—Geo. Henry Makires (*Annals of Surgery*, August, 1899) concludes:

1. The diagnosis of rupture of the colon is very difficult, and is made by exclusion, and often needs an explorative incision to be certain.

2. The degree of shock is very variable.

3. Pallor with sweating is a common condition.

4. Pain in the abdomen is a constant though not a continuous symptom.

5. Rigidity and tension of the abdominal muscles is a constant sign.

6. Abdominal distention comes on with peritonitis.

7. Abdominal tenderness may or may not be present.

8. Percussion may show cellular emphysema, absence of liver dullness, or loss of the normal tympany.

9. The most important symptom is a steadily rising pulse with loss in force.

10. Temperature rises as patient reacts from shock.

In twenty cases 15 per cent. recovered, but in this number only seventeen were operated upon, giving a recovery of 20 per cent. of cases operated upon.

THE PRINCIPLES OF THE TREATMENT OF INJURIES OF THE SPINAL CORD.—Percival R. Balton (*Annals of Surgery*, August, 1899), after reviewing the etiology, nature and method of repair of injuries of the spinal cord, reaches the following conclusions:

1. Cells and fibers of the cord are readily destroyed, and once destroyed are never regenerated.

2. Extradural hemorrhage does not give rise to cord lesions or symptoms, and requires no treatment.

3. Total lesions of the cord are irremediable, because the cells and fibers of the entire thickness are destroyed, are never regenerated, and are replaced by cicatricial tissue. The lesion thus is permanent, and requires no treatment.

4. In hematomyelia the clot is absorbed; its site persists as a cavity or is filled by newly-formed tissue; irregularities of circulation in the surrounding portions of the cord adjust themselves. There may be great amelioration of the symptoms. There is therefore no therapeutic indication, and no remedial treatment is possible.

5. In partial contusion of the cord the lesion results in permanent destruction of cells and fibers; disturbances of circulation adjust themselves. Repair is accomplished by cicatricial tissue. No treatment is available.

6. In open injuries of the cord there are destruction of cells and fibers and disturbances of circulation. In addition, infection may occur, or a foreign body be introduced and left in or lodged against the cord, and by its continued presence produce great disturbance of circulation and consequent extensive degeneration and necrosis of cells and fibers. Repair occurs by cicatricial tissue as before.

7. But here operative interference is indicated to remove foreign bodies, to facilitate disinfection, to prevent more extensive necrosis and to facilitate drainage.

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**SURGICAL TREATMENT OF TRIFACIAL NEURALGIA.**—I think the operation should be done only when the autopsy is performed; in other words, I have never seen more than two permanent successes, and, to be very Hibernian, I doubt very much if they were permanent, because the patients passed away from under my observation within three years. If you should look up the "Index Medicus" and Chipault's French work, you will find there is an enormous literature upon this subject, from the analysis of which you will perceive that the operation is a very foolish one, except from the point of view of making a surgeon's reputation; and I think almost any remedy, like aconitia and others of the same ilk, will show just as large a number of successes.—[Landon Carter Gray.

I have never removed the Gasserian ganglion and never expect to do it. I believe the operation will become obsolete in the near future.—[Nicholas Senn.

I have never as yet had occasion to advise the Gasserian-ganglion operation. I have found the medical treatment of the severe trigeminal neuralgia, on lines similar to those advised by Dana, more satisfactory than is often believed, and I have more than once obtained complete relief for a considerable period. In but one case, in fact, have I had to advise an operation, and then I began with a simple excision of the peripheral branch of the nerve. This is not always of permanent benefit, but the period of relief is often very considerable, and I can now recall few cases that have been compelled or been willing to resort to the severer operations back

toward the foramina. I hold the removal of the ganglion as the last resort after medical treatment and the lesser operation have failed, and I have not yet been compelled to advise it. As to the pathology, there is certainly in the excised portions of nerve a degeneration. Whether there are also central changes is as yet undetermined.—[Phillip Coombs Knapp.

I have removed the Gasserian ganglion but once—in a very old lady—and with fatal result.—[W. S. Halsted.—*Med. Rec.*, Sept. 9, '99.

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**THE TREATMENT OF DIPHTHERIA WITH THE ANTITOXIN.**—Wenner (*Archiv fur Kinderheilkunde*, B. 27, H. 6, no. 2) reports the result of an analysis of the cases of diphtheria treated in the diphtheria department of the Children's Hospital at Zurich from October 25, 1894, to December 31, 1898. There were received 512 patients, of whom 52 died (10.1 per cent.) Diphtheria bacilli, however, were found only in 432, of whom 44 died (10.18 per cent.) Of these 432 cases only 8 were, for various reasons, not treated with antitoxic serum. Comparative observations show that the mortality for all cases has been reduced from 23 per cent. between 1874 and 1894 to 10 per cent. between 1894 and 1898. In the cases in which intubation or tracheotomy was required the mortality has been reduced from 68.7 per cent. to 19.4 per cent., and in those requiring no operative intervention from 15 per cent. to 5.8 per cent. It was found that as a result of the use of the serum the temperature declined rapidly to the normal in the majority of cases, whether the injection was made early or late in the progress of the disease. Exfoliation of the deposit is more rapid and in almost all cases uniform. The influence upon the stenotic manifestations is most distinct. After the injection extension of the disease to the pharynx and the larynx and exacerbation of the stenosis are not observed. Marked albuminuria, nephritis, and paralysis are not to be considered as sequelæ of the injections, but as a result of the activity of the diphtheria toxin. The serum causes various exanthems, often even fever, but these are never attended with further serious consequences. Individual serums present differences in this respect. In no case has death or injury to health resulted from the injections. For the foregoing reasons the employment of the serum is warmly indorsed for both hospital and private practice.—*Med. Record*, Sept. 16, 1899.



**SCARLET FEVER REPRODUCED BY INOCULATION; SOME IMPORTANT POINTS DEDUCED THEREFROM.**—Stickler (*Medical Record*, Sept. 9, 1899), attempting to find a protective virus against scarlet fever, injected ten children with mucus obtained from the throat and buccal cavity of a patient who had a mild attack of scarlet fever. Inoculations were made by injecting this material into, not under, the skin, the mucus being first treated with carbolic acid (1-600). In each instance genuine scarlatina developed, and the experiment was abandoned. All the cases thus produced were mild, and terminated in recovery. The following conclusions were drawn:

1. The mucus of the throat and mouth has been shown with absolute certainty to contain the contagium of the disease.

2. The early eruptive stage of scarlatina is exceedingly infectious, because of the presence in the discharges from the mouth and throat of the special poison of the disease.

3. The contagium of the disease being in the mouth and throat secretions, care should be taken not only to disinfect these parts as perfectly as possible, but to keep the tongue, mouth and lips moist constantly, if possible, in order to prevent the contagious principle being forced into the air of the room by the exhalations of the patient.

4. Mouth and nose wipes should be used instead of spit cups and costly handkerchiefs, and they should be destroyed by fire before the discharges on them dry, i. e., at once. If fire be not available, disinfecting solutions should be used strong enough to render the poison inert.

5. The soiling of bed clothing and personal apparel with mouth discharges should be prevented, if possible. In the event of such contamination they should be disinfected as soon as possible.

6. No toys or implements of any sort that cannot be boiled or subjected to the strongest germicidal solutions should be given the patient, as they are apt to become soiled by the mouth secretions.

7. Those who minister at the bedside should be especially careful as to personal contamination and disinfection from the moment they enter the room.

8. The nostrils should be taken thorough care of, as the morbid matter which finds its way into these parts will, in the dry state, easily find its way into the atmosphere of the room, thus making the spread of the disease more probable.

**A NEW OPERATION FOR INGUINAL HERNIA.**—Carl Beck (*Medical News*, September 16, 1899) describes his new operation as follows:

The incision is made down to the internal surface of Poupart's ligament alongside the outer margin of the rectus muscle, exposing its lower third down to the shelving portion of Poupart's ligament. The sac is isolated from the cord, and ligated and cut off within the internal ring. While the cord is held away the cut aponeuroses are dissected backward, and an oblique incision is made which divides the lateral fibers of the rectus muscle transversely to the extent of about one-third of its width, a little below the lower third of the muscle. The incised fibers are then so far severed from the remainder of the muscle that their upper portion when turned downward will reach Poupart's ligament without any considerable tension. This turned flap is now fastened to the conjoined tendon at one side, and to Poupart's ligament on the other, with formalin catgut after the cord has been placed upon it so that the cord rides, as it were, on the muscular flap. The gap caused by the resection of the flap is now covered by uniting the outer margin of the rectus muscle with the broad abdominal muscles. Then the cut aponeuroses are united above the cord by a continuous suture, thus forming a very strong posterior muscular wall, which in large and direct hernias may be of importance. It may also be that the removal of the sac may thus be rendered unnecessary in small hernias.

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**A RARE OBSTETRIC ACCIDENT.**—Dr. H. Mallius (*Lancet*, Aug. 19) attended on July 29 a woman, a primipara, with reference to whose case he was rather anxious, as she had early in her pregnancy exhibited a tendency to eclampsia. On arrival at her house he was told that she had already had two "stoppages." Finding the os to be fully dilated, he gave chloroform and proceeded to apply forceps. The blades slipped over the head with the greatest facility, but when it came to locking the handles, that of the upper blade refused to coapt with its fellow, notwithstanding the most careful manipulation. After several failures he decided to withdraw the forceps and reapply them. The lower one came away easily, but on attempting to extract the upper one he found it impossible to do so for more than a certain distance. On seeking for the cause of the difficulty the tip of the blade could be felt to be wedged between the head and a much smaller body of an equally firm na-

ture. Any traction on the handle only served to bring this smaller body lower down and increase the impaction of the blade. As the pains were strong and regular and the head was steadily descending, he determined to leave things to nature and await the solution of the puzzling phenomenon, doing nothing beyond guiding the handle of the imprisoned blade in the right direction. As the delivery of the upper shoulder and arm followed that of the head the tip of the blade came into view, resting in the bend of the elbow, the hand and forearm having, through some extraordinary mischance, slipped through the fenestra of the blade. As might have been anticipated, the arm was for some days somewhat deficient in power as a result of the accident, but at the time of writing was steadily improving. Never having heard of such a case, Dr. Mallius wrote to Dr. G. E. Herman, the experienced author of "Difficult Labor," to ask if he had ever met with a similar one. In a courteous reply he stated that he had never met with or heard of such a case.—*N. Y. Med. Jour.*, Sept. 16, 1899.

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EPIDEMIOLOGY AND BACTERIOLOGY OF CEREBRO-SPINAL MENINGITIS. H. Jaeger (*Deutsche medicinische Wochenschrift*, July 20, '99) believes that time has proved the correctness of his observation that the meningococcus is the cause of epidemic cerebro-spinal meningitis. Since his original publication he has examined seventeen cases, in all of which the meningococcus was discovered. Some of these were epidemic and some sporadic, and they furnished examples of the transformation of the disease from the epidemic into the sporadic form. Jaeger has no doubt that the microörganism is entirely different from the pneumococcus and can be fairly readily distinguished from it. It is more difficult to distinguish it from the staphylococcus, however, and this difficulty has, in his mind, led to the statements made by Hunermann, whose work was abstracted in this journal. Jaeger has no doubt that Hunermann found both staphylococci and true meningococci in his cultures, but that he has confused the two. The distinguishing characteristics of the meningococcus as against the staphylococci are that the former grows but slowly if at all on gelatin without liquefying it, while the staphylococci liquefy it rapidly. The reason that the meningococcus has been so frequently found in the nasal mucus and other locations without causing the disease, is that it is a widespread

microörganism, and is practically always present, but human beings have, as a rule, but slight disposition to the disease; all the epidemics are likely to be small. Jaeger has demonstrated himself, that the microörganism can stand drying for so long as ninety-six days, and there is evidence of the microörganism having remained present for so long as three years after an epidemic, and then having caused another outbreak.—*Phila. Med. Jour.*, Sept. 16, 1899.

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THE PRIMARY CHANNELS OF TUBERCULOUS INFECTION IN CHILDHOOD. Dr. George F. Still (*British Medical Journal*, August 19, '99), in a paper presented to the last meeting of the British Medical Association, arrives at the following conclusions:

1. The commonest channel of infection with tuberculosis in childhood is through the lung.
2. Infection through the intestine is less common in infancy than in later childhood.
3. Milk, therefore, is not the usual source of tuberculosis in infancy, perhaps owing to the precautions taken in boiling, sterilizing, etc.
4. Inhalation is much the commonest mode of infection in the tuberculosis of childhood, and especially in infancy.
5. The overcrowding of the poor population in the large towns is probably responsible for much of the tuberculosis of childhood, and prophylaxis must be directed to the prevention of this overcrowding, the improvement of ventilation, and the inculcation of the extreme importance of fresh air during the earliest years of life.—*N. Y. Med. Journal*, Sept. 16, 1899.

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THE MICROÖRGANISM OF SCARLET FEVER.—Class (*The Sanitarian*, August, 1899) has found, as he believes, the microörganism of scarlet fever. It is a diplococcus, resembling, as ordinarily seen on freshly made slides, a large gonococcus. The size varies somewhat, but is always considerably larger than the pus-microbe. Usually these cocci occur in bunches of from ten to fifty. Streptococcic forms are occasionally met with. The organism has no capsule. It does not show any spores, has no flagellæ and under examination by the hanging-drop it does not show any independent motion. It is decolorized by Gram's method, although not to the same extent as the gonococcus. The germ described has been cultivated from

the scales in about thirty typical cases of scarlatina. It has also been found in the angina of scarlatina, and in cases of angina occurring in persons exposed to scarlet fever in whom no eruption shows. The writer also found it in the throats of children in a family, one member of which had scarlatina, although the children were well at the time the culture was made. Subsequently these children developed scarlatina, and the germ was cultivated from their scales. Class hesitates to say that this is the specific germ of scarlet fever. He is making further experiments along the same lines. A culture of the microorganism injected into the ear veins of swine has produced a disease closely resembling scarlatina in the human being. From the blood and scales of the inoculated animal the same organism has been isolated. The germ will not grow in agar-agar nor in bouillon. Class used a glycerin agar-agar, to which was added a thin paste containing five per cent. of dried and sifted garden earth, mixed with bouillon and boiled.—*Med. News*, Sept. 16, 1899.

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**TREATMENT OF BOILS AND CARBUNCLES.**—Philippson (*Therapeut. Beil. der Deutsch. Med. Woch.*, May 4, p. 31) says the three most useful agents for inhibiting the growth of the staphylococci, which are the cause of boils, are alcohol, benzoic acid, and salicylic acid. When fully developed a boil should be covered with a plaster containing 50 per cent. salicylic acid, which should be renewed three or four times a day, in order to remove the discharge. Maceration takes place, and the necrobiotic process is hastened so that the loosened core can generally be squeezed out after twenty-four hours' treatment. Rapid healing then follows under the salicylic plaster. The same treatment should be applied to carbuncles, though it is well to increase the activity of the plaster by covering it with linseed meal poultices. Multiple and deep punctures with the thermo-cautery often shorten the process, and if the carbuncle is spreading, deep incisions over the infiltrated margin are necessary. Boils on the face are very liable to lead to septicemia. They should be punctured with the galvano-cautery, the resulting slough removed with the sharp spoon, the cavity filled with powdered salicylic acid, and the whole covered with the salicylic plaster. For small furuncles, before they are fully developed, sponging three times a day with cotton wool soaked in alcohol, or in a solution of benzoic or 2 per cent. salicylic acid in alcohol, is sufficient. The inflamed parts.

should not be touched with water or soap. Thus in general furunculosis baths must be avoided, since everything which macerates the skin adds to the chance of the organisms penetrating it. For disseminated furuncles a convenient method of treatment is inunctions twice a day of a 2 per cent. salicylic acid ointment, which should be continued for eight days after the appearance of the last boil. In children the application of a 50 per cent. salicylic acid plaster to large surfaces, such as the back of buttocks, causes the disappearance, not only of the tone furuncles and carbuncles, but of the deep subcutaneous abscesses which so frequently accompany them, and which usually require opening. It is of importance to discover the constitutional cause of the furuncles, and to treat it appropriately.—*Medical and Surgical Review of Reviews*, London, July, 1899.—*Philadelphia Medical Journal*.

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A NOVEL TREATMENT OF CERTAIN FORMS OF HEADACHE, DEAFNESS AND TINNITUS AURIUM.—Van Sant (*Phila. Med. Jour.*, Sept. 9, '99) again calls attention to his method of treating these affections by syringing the accessory sinuses or middle ear with hot air supplied by a specially-constructed syringe. The hot air syringe consists of a small chamber containing in some instances a piece of carbon, in other instances having in its interior several diaphragms of metal. This chamber is held over a flame, preferably that of a spirit lamp, until heated. Coming off of the chamber, anteriorly, is a nozzle with adjustable tips. The air enters the chamber from behind and is heated while passing through. The instrument is small in size and is held by a handle placed at a convenient angle. The air to be heated is obtained from the usual air condenser. The amount of heat produced may be varied at will, from a mild warmth to a burning degree, and depends upon how hot the chamber is heated, how swiftly the current of air is passed through, and how close the nozzle is held to the surface to be treated. In some instances vapors of chloroform, menthol, etc., have been added to the heated air; this is done by placing a small quantity of the medicament in the little cup found on one of the tips, or by placing it direct in the catheter, when one is used.

In preparing the nasal chambers for treatment, the mucosa is first shrunk by applications of cocain or eucain, used alone or followed by watery solutions of the suprarenal capsule of the sheep.

The hot air is directed against the openings of the sinuses, or, if necessary, a small catheter is used. When the middle ear is treated the air is passed through a eustachian catheter.

The treatment, when properly carried out, is not painful, but rather agreeable to the patient.

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**MALARIA OF A PERNICIOUS FORM CURED BY HYDROTHERAPY AFTER THE FAILURE OF TREATMENT BY QUININ.**—Lemoine and Veuillot (*Le Nord Med.*, July 15, 1899) relate the history of a patient, aged 31 years, who suffered from malaria of an aggravated type. Chills and fever occurred irregularly, and were temporarily and partially relieved by the administration of from 30 to 60 grains of the sulphate of quinin per day. Hypodermic injections of quinin and of cinchonidia were equally unsuccessful. Things had gone on in this manner for three months, and the patient had lost all appetite, and vomited almost all food. The medicine was discontinued, and the patient was subjected daily to treatment by a stream of cold water directed upon the chest, arms, back and legs. At first the douche was given for only ten seconds, but the time was gradually increased until it lasted a minute. The temperature of the water was 45°F. The chills and fever disappeared almost immediately, the general condition began at once to improve, and in a short time the patient was entirely well.—*Medical News*, September 16, 1899.

## BOOK REVIEWS.

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**Any medical book can be obtained through the Lancet at publisher's prices, postage free. Terms cash. The usual discounts are allowed.**

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**A Textbook of Diseases of the Nose and Throat.** By D. Braden Kyle, Clinical Professor of Laryngology and Rhinology, Jefferson Medical College; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes' Hospital; Bacteriologist to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Fellow of the American Laryngological Association, etc. With 175 illustrations, 23 of them in colors. Philadelphia: W. B. Saunders, 1899. Price, \$4.

This book has been looked for with much interest, and in many ways is a departure from the path followed by most American manuals on the subject; of especial worth is the exceeding valuable and scientific exposition of the pathologic aspect of the subject, many of the illustrations, especially those in colors giving the microscopic appearances, being the most beautiful it has been our fortune to see, while the text is quite up to what we would expect from the author's well-known ability as a pathologist. These illustrations in particular are taken from the author's individual preparations. The other illustrations, too, are often original, and always extremely well selected. Dr. W. W. Keen has contributed a valuable chapter on his method of partial and complete removal of the larynx. A comprehensive syllabus, in the form of a table, precedes each chapter, and is a valuable feature. Numerous prescriptions will gladden the eye of him who seeks for information under the auspices of a sign of the zodiac. We note the absence of a sufficiently detailed method of removal of the turbinated bodies, and of opening the anterior ethmoidal cells. By the way, it is quite the fashion to slight the latter operation. Asch's operation for deflected septum seems to us to merit an extended description. The text, illustrations and general press work of the book are in Mr. Saunders' usual excellent style.

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**American Pocket Medical Dictionary.** Edited by W. A. Newman Dorland, A.M., M.D., Assistant Obstetrician to the Hospital of the University of Pennsylvania; Fellow of the American Academy of Medicine, etc. Containing the pronunciation and definition of over 26,000 of the terms in medicine and the kindred sciences, along with over 60 extensive tables. Second edition, revised. W. B. Saunders, Philadelphia, 1899. Price, \$1.25.

This little book is to be commended for its completeness, its accuracy, which is not impaired by the necessary brevity, and for the handsome style in which the presswork and binding has been done. The flexible covers, thumb index, small size and clear type, make it an exceedingly handy reference book, and as we said before, it is very accurate in its definitions. Of the many excellent tables we are especially pleased with the complete table of doses, wherein doses are given in both the apothecaries and metric system, and a table giving comparative values of the English and French system of weights and measures. Not the least of the attractions is the price.



**Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year 1898 (Centennial Year).**  
Washington: Government Printing Office, 1899.

The first 84 pages are devoted to matters of administrative detail, regulations, etc. The total expenses for the year ending June 30, 1898, were \$600,131.45; for the quarantine service, \$155,219.85. From page 85 to 226 is taken up by reports and histories of fatal cases, with autopsies, some of which are quite interesting. The next section consists of contributed articles of general medical and surgical interest by Passed Assistant Surgeons Woodward, McIntosh, Cobb, Stoner and Young, Assistant Surgeons Cofer, Oakley, Greene, Mathewson and Eagleson, and reports from Acting Sanitary Inspector Havelburg. The next succeeding section has already appeared in pamphlet form—a symposium on “Yellow Fever, its Nature, Diagnosis, Treatment, Prophylaxis, and Quarantine Regulations Relating Thereto.” The balance of the book consists of service reports, investigations of the origin of yellow fever and smallpox outbreaks, and a summary of the quarantine work done by the service. The preliminary report of Geddings and Wasdin on the etiology of yellow fever is of especial interest. They had isolated the bacillus icteroides of Sanarelli in 81.25 per cent. of the cases examined. Geddings believes that the “bacillus icteroides of Sanarelli is the specific agent in the causation of yellow fever.”

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**Treatment of Pelvic Inflammation Through the Vagina.** By Wm. R. Pryor, M.D., Professor of Gynecology, New York Polyclinic; Consulting Surgeon, City Charity Hospital; Visiting Surgeon, St. Elizabeth Hospital, New York City. With 110 illustrations. Price, \$2 net. Philadelphia: W. B. Saunders, 1899.

A small part of the gynecologic science that relates to the inflammatory diseases of the pelvis has been well treated by the brilliant author. In the majority of these diseases he believes that they are more amenable to surgical interference, but at the same time he fully considers the milder methods of treatment. The book is hence valuable to both the general practitioner and specialist.

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**The Hygiene of Transmissible Diseases—Their Causation, Modes of Dissemination, and Modes of Prevention.** By A. C. Abbott, M.D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene, University of Pennsylvania. Philadelphia: W. B. Saunders, 1899. Price, \$2.

This is a good book, well printed and well written. The section on malaria is of particular interest to us, and while larger and more comprehensive works on this special subject are obtainable, the general practitioner, in this particular little book, gets the gist of the subject in a very few pages, which are also well illustrated. The different tenia receive careful attention, and are well pictured. In short, it affords us pleasure to commend this book.

## BOOKS AND PAMPHLETS RECEIVED.

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*The Treatment of Pelvic Inflammations Through the Vagina.* By Wm. R. Pryor, M.D., Professor of Gynecology, New York Polyclinic; Consulting Surgeon, City (Charity) Hospital; Visiting Surgeon, St. Elizabeth Hospital, New York City. With 110 illustrations. W. B. Saunders. 1899.

*A Textbook of Diseases of the Nose and Throat.* By D. Braden Kyle, M.D., Clinical Professor of Laryngology and Rhinology, Jefferson Medical College; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes' Hospital; Bacteriologist to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Fellow of the American Laryngological Association, etc. With 175 illustrations, 23 of them in colors. W. B. Saunders. 1899.

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*Centennial Year.* Annual Report of the Supervising Surgeon-General of the Marine-Hospital Service of the United States for the Fiscal Year 1898. Washington: Government Printing Office. 1899.

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*Report of Surgical Operations at the Briggs Infirmary of Dr. Chas. S. Briggs and Samuel S. Briggs, during its eighth session, from September 10, 1898, to August 1, 1899.* Reported by J. E. Bell, M.D., Nashville, Tenn. (Reprinted from *Nashville Journal of Medicine and Surgery*, July and August, 1899.)

*Advice to Gonorrheal Patients.* By Fred. C. Valentine, M.D., (Reprinted from the *Philadelphia Medical Journal*, July 8, 1899.)

*One Hundred and Sixty-six Cases of Cancer of the Pregnant Uterus Occurring Since 1886.* By George H. Noble, M.D., Atlanta, Ga. (Reprinted from *Atlanta Medical and Surgical Journal*, July and August, 1896.)

*Chronic Interstitial Nephritis: Treatment of the Heart Therein.* By Arthur R. Elliott, M.D., Chicago. (Reprinted from *Journal of American Medical Association*, July 15, 1899.)

*Some Remarks on Chronic Bright's Disease.* By Arthur R. Elliott, M.D., Chicago. (Reprinted from the *Med. Record*, July 15, '99.)

*Rubber Gloves or Gauntlets: Their Use by Physicians and Surgeons.* By J. E. Summers, jr., M.D. (Reprinted from the *Journal of the American Medical Association*, July 8, 1899.)

*Nephro-Ureterectomy for Traumatic Hemato-Hydro-Nephro-Ureterosis.* By John E. Summers, jr., M.D. (Reprinted from the *Medical Record*, July 29, 1899.)

*Empyema of the Gall Bladder.* By J. E. Summers, jr., M.D., Omaha, Neb. (Reprinted from *Western Medical Review*, Lincoln, Neb., June, 1899.)

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## NEWS AND NOTES.

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DR. T. J. CROFFORD returned from his vacation on Sept. 15th.

DR. W. S. WEBB spent the last two weeks of September in Hot Springs.

DR. J. L. MINOR spent the month of September recuperating in the East.

ST. LOUIS has broken ground for a new city hospital to cost several million dollars.

WE hear from the daily papers that the California Board of Health is considering the advisability of quarantining against consumptives.

THE fourth volume of the second series of the Index Catalogue of the Library of the Surgeon-General's office has been issued. It covers from *D* to *emulsions*.

THE eleventh annual meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee will be held in Chattanooga, October 24-26. Dr. F. T. Smith is the Secretary.

THE valuable series of special articles on "The Law in its Relation to Physicians," by Arthur N. Taylor, which has been running in the *New York Medical Journal*, was concluded in the number for September 16th.

MICHIGAN has a law prohibiting the marriage of any person suffering from gonorrhea or syphilis. Violation of this law is a felony, punishable by a fine of not less than \$500 or more than \$1000, or imprisonment in the penitentiary for a term not exceeding five years, or both. Husband or wife may testify against the other, and the privilege of medical secrecy is abrogated in such cases.

THE changes of service at the City Hospital occurred on September 1st, the following gentlemen going on duty for September and October: Physicians, Drs. Goltman and Haynes; Surgeons, Drs. Herman and Smythe; Gynecologist, Dr. Taylor; Obstetrician, Dr. Sale; Oculist and Aurist, Dr. Ellett. Drs. Meyer, Turner and Kennedy Jones are on duty all the time as Pathologist, Neurologist and Laryngologist respectively.

THE yellow fever situation to date of this writing comprises 200 cases at Key West, with about ten new ones each day, a fatal case at Port Tampa, confirmed by autopsy, the same at Jackson, Miss., and some other cases at Mississippi City and New Orleans. Extensive local quarantines have been put into effect in these neighborhoods, but so far Memphis and the State of Tennessee has done nothing at all.

THE program of the Mississippi Valley Medical Association has been issued. The meeting will be held in Chicago, October 3-6. There are twenty papers listed in the medical section and thirty-three in the surgical, the program containing most of the prominent names in medicine in the Valley. In addition to this program a series of clinics will be held daily at the different hospitals, which will be one of the most instructive parts of the meeting. Dr. H. Moyer is Chairman of the Committee of Arrangements.

PRIZES FOR WORK ON MALARIA.—The committee of the Societe des Etudes Coloniales, of Brussels, has offered two prizes for suc-

cessful investigations in malaria, each of the value of 2500 francs (\$500). The first is to be awarded to any one who shall considerably advance our knowledge of Laveran's hematozoon malarie in its cycle of existence, either within or outside of the human body. The second is to be conferred on anyone who shall determine the exact etiology of the so-called malarial hemoglobinuria, the *fièvre biliaire hemoglobinurique* of the French.—*Med. News.*

DR. MAX THORNER, of Cincinnati, died suddenly at 1 o'clock on the morning of August 27th at his home. He had just returned from his vacation, and after a hard day's work had gone to bed early. A member of the household was roused at 1 o'clock by the sound of some one falling, and found Dr. Thorner lying dead at the bath room door. Dr. Thorner was a laryngologist of great prominence, possibly the most prominent in the Middle West, by virtue of his high scientific attainments. He was a German graduate, and when he came to this country he could not speak English. He was Professor of Laryngology in the Cincinnati College of Medicine and Surgery, a Fellow of the American and Berlin Laryngological Societies; was 39 years old and unmarried.

THE TRI-STATE MEDICAL ASSOCIATION.—The sixteenth annual meeting of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee will take place in Memphis, November 14, 15 and 16, 1899, in the Woman's Building. The rapidly-growing popularity of this aggressive organization of representative physicians from the territory contiguous and tributary to Memphis is such that in point of attendance and enthusiasm it has no superior in the South. At its last meeting nearly three hundred physicians were present during the sessions of the Association, and the list of papers read was very complete, the papers being of a quality far above the ordinary. Physicians from all portions of the States comprising this Association are urged to take a brief vacation from their arduous duties and come to this meeting. All railroads entering the city of Memphis will make the customary one and one-third fare rate, on the certificate plan. Titles of papers should be sent to the Secretary, Dr. Richmond McKinney, Porter Building, Memphis, Tenn.

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be present, as also uric acid. If the condition remains neglected the probable results will be sooner or later a pronounced attack of rheumatism in one or another of its forms. All that is needed to induce such a condition is a sudden change in the weather or exposure on the part of the patient to cold or wet, or a combination of the two. This is due to a latent rheumatic diathesis, to which every adult is liable. In such cases the physician will find Tongaline in any one of its forms, as indicated, given at short intervals with copious draughts of hot water, a remedy which goes directly to the source of the trouble. Tongaline seeks out the retained excretions, or perverted secretions, which it either neutralizes or renders amenable to the physiologic action of the emunctories, and then it brings to bear its strong eliminating powers, correcting the complaint promptly and thoroughly.

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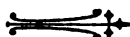
THE RELIEF OF CHEST PAINS IN TUBERCULOSIS.—Dr. A. W. Beketoff (*Amer. Jour. of Med. Sci.*, August, 1899) has made use of Heroin in the treatment of twenty-five patients suffering from tuberculosis, in doses of one-tenth of a grain in powder or pill. In about fifteen minutes after its administration cough ceases and sleep is possible. The respiration, especially when increased by coughing or pleuritic pain, is slower and deepened. In case of disease of the

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heart, or oxygen hunger from encroachment upon the respiratory area (large cavities) this remedy is of little or no value. It has but little influence upon the circulation as regards either frequency or fullness, further than that respiration is benefited. It relieves chest pain and so favors sleep. Insomnia due to mental excitement is not markedly relieved. It is well borne, even if digestive disturbances exist. It is indicated in the treatment of hemoptysis because of its beneficial action on cough. Patients do not become readily accustomed to its action, and it may be administered for a month without necessity arising for increase of dose.

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Chemist and Bacteriologist of the Board of Health.  
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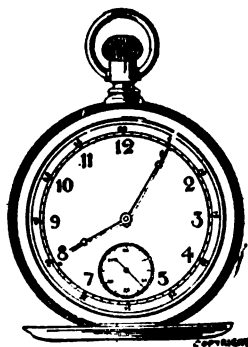


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*Try it in Intestinal* or gastric irritation, inflammation, or ulceration, that inhibits food itself, and witness the nourishing, supporting and healing work done entirely by absorption, without the slightest functional labor or irritation; even in the most delicate and critical conditions, such as Typhoid Fever and other dangerous gastro-intestinal diseases, Cholera Infantum, Marasmus, Diarrhœa, Dysentery, etc.

*Try it per rectum*, when the stomach is entirely unavailable or inadequate.

*Try it by subcutaneous injection*, when collapse calls for instantaneous blood supply—so much better than blood-dilution!

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*Try it in Chronic Catarrhal Diseases*; spraying it on the diseased surfaces, with immediate addition of peroxide of hydrogen; wash off instantly the decomposed exudation, scabs and dead tissue with antiseptic solution (Thiersch's); and then see how the mucous membrane stripped open and clean, will absorb nutrition, vitality and health from intermediate applications of pure bovinine.

*Try it on the Diphtheritic Membrane* itself, by the same process; so keeping the parts clean and unobstructed, washing away the poison, and meanwhile sustaining the strength independently of the impaired alimentary process and of exhaustive stimulants.

*Try it on anything*, except plethora or unreduced inflammation; but first take time to regulate the secretions and functions.

*Try it on the patient* tentatively at first, to see how much and how often, and in what medium, it will prove most acceptable—in water, milk, coffee, wine, grape, lemon or lime juice, broth, etc. A few cases may even have to begin by drops in crushed ice.

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# THE MEMPHIS LANCET.

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## ORIGINAL ARTICLES.

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### RECTAL FEEDING IN CONNECTION WITH THE TREATMENT OF ULCUS VENTRICULI.\*

BY ARTHUR G. JACOBS, M.D.

MEMPHIS.

The treatment of severe cases of ulcer ventriculi, particularly of those in which considerable hematemesis has occurred, has of late attracted much attention. It appears that surgery has monopolized this field, leaving to internal medicine only the lighter cases. The consideration of a case of ulcer ventriculi which came under my observation in the interne department of this hospital will show that in the severest form of ulcer of the stomach internal medicine possesses most effective resources.

The case I refer to is that of a young girl who was brought into the hospital in an extremely anemic condition due to great loss of blood in connection with ulcer ventriculi. Large quantities of various narcotics and styptics were administered without result. The hematemesis increased and the patient was referred to the surgical department for immediate operation. The operation was refused, however, because her general condition was so unfavorable. Rectal feeding, which had been begun, was then continued, with the most excellent and surprising results. We thus learned to appreciate the

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\* From the Medical Department of the Berlin Jewish Hospital. Visiting Physician, Sanitätsrath Dr. Lazarus.

great value of this mode of treatment in such cases and give it the credit it deserves.

Absolute and complete rest is, in the vast majority of diseases, our most effective remedy. In case of the fracture of a limb, immobilization of the affected part secures the desired result. In acute infectious diseases rest in bed is a very important factor, and the first to be applied. Rest in bed in case of inflammation and asepsis in operation are of equal importance in the eyes of the surgeon or gynecologist. In cases of the kind mentioned it is very easy to secure rest of the affected part. But, on the contrary, if an organ or part is affected upon whose constant and uninterrupted activity the whole organism depends, it becomes a most difficult matter to secure the desired rest.

The question, in case of ulcer ventriculi, then arises: how can we administer the necessary nourishment to the body, without employing thereby the stomach, which demands for its diseased condition immediate rest?

The best substitute for the stomach, in this case, is the rectum. While it must be admitted that the rectum, because of its poorly-developed secreting structures, is not in a position to substitute the stomach in this important capacity, nevertheless on account of its peculiar structure, it is well fitted to take up the function of resorption of prepared food. If we consider the physiology of the rectum, we notice that even in its normal condition the rectum shows considerable absorptive activity. The contents of the cecum and ascending colon are watery in character, whereas the contents of the lower part of the large intestine become more and more solid as they near the anus. The great number of lymphatic structures in the large intestine shows that it possesses great absorptive capacity.

Savory<sup>1</sup> proved long ago that toxic substances pass into the circulation much more rapidly when given per rectum than when given per os. In his experiments two dogs were used, the first being given strychnin per os, the second the same drug per rectum. The dog which received the poison per rectum exhibited toxic symptoms six minutes sooner than the one receiving it per os.

Brandl<sup>2</sup> proved, recently, that the resorptive capacity of the stomach was insignificant in amount, and of no practical worth. This conclusion was arrived at after careful experiments conducted at Tappeiner's laboratory. The pyloric orifice of the stomach was

tightly occluded by means of a rubber tampon. Then a solution of grape sugar (5 per cent.) was introduced, and after two hours withdrawn. It was discovered that almost the entire quantity of the liquid introduced was brought out again. The same results were arrived at with a 5 per cent. peptone solution, and a 1 per cent. iodide of soda solution.

On the other hand, the rectum possesses most excellent conditions for the processes of endosmosis, diffusion and filtration, upon which absorption depends. The epithelial layer lining the lower part of the colon and upper part of the rectum is so constituted as to promote, through endosmosis and diffusion, considerable absorption, although the absence of villi and the slight peristaltic action are rather unfavorable for filtration. Although the epithelium of the rectum is not well adapted to take on the pure biological function of the epithelium of the small intestine, it is nevertheless capable of carrying on even this process to some slight degree.

A practical application of the theoretical points considered will demonstrate that through rectal nourishment we are able to hold, for a time, at least, the organism in metabolic equilibrium, and possibly attain an increase in body substance. The material introduced in the rectum possesses the property of exciting peristaltic action and consequent ejection, but the enema can be so prepared that this risk is very small. The dissolved albumen, because of its capability of diffusion, and the carbohydrates, on account of their high endosmotic equivalent, succeed in passing with comparative ease into the circulation.

On the other hand, the conditions necessary for the absorption of fat, i. e., filtration and the function of living protoplasm, are not well met in the rectum.

After this short physiologic preface we shall take the case in consideration in which the preceding theoretical principles have been practically applied with the most flattering results. It may prevent our referring such cases to the surgeon, where with less dangerous, less severe, and more certain method of treatment, we can attain better results.

On October 8 an 18-year-old servant girl (E. J.) was brought into the hospital, after having vomited about five cupsful of black, coagulated blood. Her previous history showed that she had always been well, with the exception of a slight but protracted anemia. She had complained now and then of pain in the epigastric region. During

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the last few days this pain had increased. That evening she vomited about 500 c. c. of blood. The following morning she vomited 1800 c. c. of blood. Patient is very emaciated, face extremely pale, pulse 120 and very soft. An operation was refused, as previously stated, because of the severity of her condition. Large doses of hydrastin and morphin stopped the hemorrhage. Patient receives four enemata daily, which she retains well. Each enema consists of 300 c. c. milk, two eggs, one pint of claret, five drops tinct. opii, and a little common salt.

On October 13 the first action of the bowels occurred, which consisted of a well-formed, brownish-yellow mass. The cleansing enemata, which are administered previous to the nutritive enemata, are completely absorbed, and in the stool no food remains could be found.

On October 14 she passed two black, foul-smelling stools.

On October 16 the patient received, for the first time,  $\frac{1}{2}$  litre of iced milk per os, as a result of which she vomited about 700 c. c. of blood.

On October 19 hematemesis reoccurred (250 c. c. blood). The number of enemata was reduced from four to two daily, the patient having complained of considerable abdominal pain. Pulse was 132, very soft and dicrotic. The cleansing enemata were also omitted.

The next action of the bowels occurred about fourteen days later, and consisted of a grayish-brown mass.

On November 3, after complaining of nausea, she vomited 50 c. c. of a light-green, clear liquid, and the following day 200 c. c. of a sour-smelling fluid. This material contained abundant hydrochloric and lactic acids.

November 9. Enemata, given twice daily, have been completely absorbed. Patient was given  $\frac{1}{2}$  litre of milk, with coffee, per os; neither nausea, vomiting or pain occurred.

On November 16 she was given solid food.

On November 19 the enemata were given for the last time. No pain in the stomach, no nausea, no vomiting; abdomen not sensitive to pressure; pulse somewhat rapid, tension good.

A blood examination on December 1 gave 45 per cent. of the normal amount of hemoglobin; otherwise nothing abnormal. Patient is improving slowly. The pulse continues somewhat rapid and dicrotic. The heart is otherwise normal. Solid food well digested.

On February 20 the patient was discharged as cured.

We have before us an exceptionally severe case of hematemesis, resulting from an ulcer of the stomach. Having been fed for nine days per rectum exclusively, the attempt was made to introduce a small quantity of liquid per os. This brought about another severe attack of hematemesis, so that rectal nourishment had to suffice for a period lasting *thirty-two days*, the body depending solely on the nourishment it received in this unaccustomed way. When we consider the enormous loss of blood and the weakened condition of the body resulting therefrom, and that, in spite of these most unfavorable circumstances, the method applied achieved such a brilliant result, we can well appreciate its value and give it the rank and credit it deserves.

Worthy of remark is the greed with which the organism absorbed the nourishment administered to it in this unusual way. Not only were the nutritive enemata absorbed, but the cleansing injections, which were introduced previous to them, were completely and rapidly taken up too. In addition, the organism offered very slight resistance to the enemata, as shown by the seldom-occurring stools.

In the above, as well as in another case of this kind, we observed an interesting, in fact remarkable, occurrence. We notice that, after having been fed for twenty-six days per rectum solely, she suddenly vomited a considerable quantity of fluid. This vomited material was strongly acid in reaction, and contained hydrochloric and lactic acids. The amount of fluid vomited was very great, and we could scarcely believe that the same consisted of pure gastric juice. We know that, without mastication and swallowing, without irritation of the mucous membrane of the stomach through the introduction of food, the amount of gastric juice secreted in a perfectly healthy stomach is very small.

The possibility of an antiperistaltic movement of the intestines being responsible for this phenomenon struck me as plausible and worthy of consideration. In order to clear this point, if possible, we applied a certain experiment on a second patient of this class, who happened to be at the hospital at about the same time.

This patient was an 18-year-old girl, born of tuberculous parents. She had been suffering for about three years from pulmonary tuberculosis. A slight infiltration of the apex of the right lung was discovered. During the last two months she had complained of severe pains in the epigastric region; nausea and vomiting after eating. An examination of the stomach contents showed the presence of hydrochloric acid; the total acidity amounted to 15. The vomiting and pain in the epigastrium increasing in severity, rectal feeding was begun. Although no nourishment per os was given, the vomiting continued. This vomited material consisted of a strong, sour-smelling fluid in which neither hydrochloric nor lactic acid was present.

On November 12 we added to the enema 1 teaspoonful of carbo-animalis, and the succeeding enemata were treated likewise.

On the morning of the 17th of November the patient vomited a fluid containing *innumerable black particles*, which were proven, by microscopic examination, to be particles of carbo-animalis. The matter vomited during the few days following contained this material also. Later, however, in spite of a daily addition of carbo-animalis to the enemata, the vomited material remained free of the particles.

The rectal feeding was continued for a period of *thirty-four days*, excepting a slight interval, during which an attempt was made to introduce nourishment per os. At the



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end of this period light food was given by mouth and borne without trouble. Having been free from fever for some time, the patient was finally discharged.

In this case, as in the first, the enemata were almost entirely absorbed. The physiologic explanation of the fact that such immense masses of material introduced per rectum are so completely and rapidly absorbed, consists therein, that an antiperistaltic movement of the intestines conducted the food material to parts of the intestine better adapted to digestion than the rectum itself. The unquestionable appearance of carbo-animalis in the vomit, after the same material had been introduced per rectum, proves most positively the existence of an antiperistaltic movement of the intestines.

The occurrence of antiperistalsis in the intestines has, of late, been regarded as very doubtful. Pflüger<sup>3</sup> has made some very careful experiments concerning intestinal movements. He used in his experiments resected portions of gut, and also the intestines of living animals. He irritated the intestines with a pair of forceps and observed, as a result thereof, two waves of contraction proceed from the point of irritation, one peristaltic, the other antiperistaltic. He emphasized the point, however, that the antiperistaltic wave never passes from the large to the small intestine.

Through experiments on rats and rabbits Christomanos<sup>4</sup> and Dauber<sup>5</sup> derived the same results achieved by Pflüger. They did not succeed in finding, in the small intestines, substances which had been introduced per rectum, in direct opposition to Grützner<sup>6</sup>, whose experiments, however, appear to have been conducted in a very careless and negligent manner.

In a recent article Plantenga<sup>7</sup> has reconsidered the views of Grützner and has shown the errors and failures in Grützner's experiments. In our experiments these sources of failures do not exist, the particles of carbo-animalis being present in the vomited material in a respectable quantity.

Inasmuch as Pflüger's experiments have proven that antiperistaltic waves can occur, in addition to peristaltic, it is easy to understand that by removing irritation from the upper part of the intestines and applying the same to the lower division of the gut, the antiperistaltic waves can overcome the peristaltic.

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**A NEW GALL STONE SCOOP.**

BY M. B. HERMAN, M.D.  
MEMPHIS.

Every surgeon of experience appreciates the difficulty encountered in removing stones from the gall bladder, as well as from the urinary bladder. The method of extracting calculi with forceps is a very unsatisfactory one, often crushing the stone into fragments, which acting as a nucleus may be the cause of other stones forming later. In order to overcome this difficulty I have devised a gall stone scoop which answers the purpose admirably.



Illustrating a new gall stone scoop devised by Dr. Herman.

The scoop consists of a handle with a ring at one end. Into this ring fits another ring, and between the two is inserted a canvas bag. This bag can be changed at will. It can either be cleansed by washing and boiling or a new one inserted in its stead. The whole instrument can be sterilized by boiling without taking it apart. The handle is sufficiently pliable to be shaped to fit a given case. The instrument has the advantage of being light, readily cleansed, occupying little room, and avoiding the crushing of the stones.

*Modus operandi:* Guided by the index finger of the left hand, the instrument is passed into the gall bladder, the stones gently pushed into the bag, and the instrument withdrawn; this process to be repeated until all the stones are removed.

## THE SIGNIFICANCE OF LACERATION OF THE CERVIX UTERI.

BY H. O. PANTZER, M.D.

INDIANAPOLIS, IND.

Gynecologist to City Hospital and City Dispensary, Consulting Gynecologist to  
Deaconess Hospital, etc., etc.

A score of years ago our knowledge of the diseases of the pelvic organs was very imperfect. Undue importance was attached to cervical lacerations and their operative reunion. He who has not followed the advance of this science and is deficient in pelvic diagnosis, is wont to the present day to magnify the importance of cervical lacerations. It may be of interest to consider this injury in the light of modern science.

Cervical lacerations are advantageously regarded as recent or old, simple or complicated lacerations. A simple or complicated laceration, recent or old, commonly speaking, has little or no practical significance. An exception to this rule is the recent tear extending high up. This is attended with hemorrhage, and calls for remedial measures. Without a complication a tear heals with or without reunion of its parts. The healed though unreunited tear has no significance except as the scar may prove an impediment to labor or dispose to vicinal tears in subsequent labors. It has no significance in the ordinary clinical sense.

Complicated lacerations are conveniently considered under two heads—complications by bacterial infection and complications which affect the supports and the position of the uterus. Bacterial complications are by saprophytes and by pathogenic bacteria. Saprophytic activity may retard but does not prevent healing, though it interferes measurably with reunion of the lacerated parts. The absorbing surface afforded by the cervical tear is small compared with the coexisting absorbing surface of the placental site or the possible coexisting perineal tear.

The cervical tears complicated by pathogenic infection are the tears of real clinical interest. In the recent tear, complicated by pathogenic infection, local and constitutional symptoms arise. The inflammation may limit itself to the cervical structures, or by blood

vessels and lymph channels may spread to adjacent and distant parts. Commonly, the cervical tear is not the only site of infection. The vagina, the perineum and the placental site in the uterus afford separate portways and carriers of infection. The grave significance of a laceration in the recent state and under such presence is known too well to require its description or valuation.

When the disease does not end fatally it is here of interest to consider the significance of a tear that becomes the seat of a chronic inflammation or that has healed with other defect. An infection by the ordinary bacteria of inflammation, excepting the gonococcus, is usually self-limited, here as elsewhere in the body ending in resolution. When the infection persists in the cervix it has the form of a mild superficial endometritis, and is curable except when it is complicated with disease in adjacent structures, which tends to keep up the cervical affection. A pelvic abscess, inflammatory disease and adhesions and uterine displacements militate against the curability of cervical inflammation. Here the persistence of the disease is distinctly and chiefly ascribable to these collateral conditions, and should be to them charged.

If we apply what we know about gonorrheal inflammation to cervical tears we will, by theorizing upon the matter, expect special conditions to obtain. A gonorrheal infection skims over the surface. It rarely affects the deeper parts by its own corrosive effect. However, when once it gains entrance to the submucous layers it develops along its course a firm and heavy cicatricial tissue. The portway to the deeper tissues is given in a cervical tear.

A gonorrheal infection gives rise to well-defined conditions and symptoms in the male. We recognize them in the form and symptoms of chordee and strictures of the urethra. In the female, too, a gonorrheal inflammation develops hyperplasia in the form of cicatricial tissue. To gonorrhea, I maintain, is owing the prominence given to cervical lacerations. These cases entail uterine congestion and enlargement, pelvic pain and congestion, various local and reflex phenomena, and a disposition to malignant growths at the site of the tear. When the gonorrheal inflammation extends beyond the cervix, cicatricial bands develop along its course. These bands, as they affect the bladder, the urethra, the rectum or the broad ligaments, give rise each to its special train of symptoms. These bands should be considered distinctively and treated separately.

No doubt often they go unrecognized, and the treatment applied to such cases is deficient.

The known frequency of the gonorrheal infection, the persistence commonly of the germs in the cervix and upon the vaginal vault in cases apparently healed (Werthheim, Doederlein, Burckhardt), is of interest here. The vaginal mucous membrane in time develops a tolerance of the gonococcus, which often quite conceals its presence. Upon occurrence of a trauma the gonococcus comes in contact with heretofore untainted tissues, which tissues are acutely susceptible to its influence, and upon which the gonococcus acts with unmitigated virulence. Happily for many cases the germ is not at all times of equally great virulence, and only rarely of such degree and effect as to give rise to great cicatricial formation. However, when a virulent gonorrheal inflammation develops, then the cervical laceration will attain to the importance formerly ascribed to cervical lacerations. In the consideration of cervical lacerations, little discrimination was shown in the past. Indeed, it should be said in extenuation of such erring that there was then too little knowledge of bacterial and pelvic diseases by which to make discrimination. As a consequence, however, we note the great difference of opinion by different authors on the significance of cervical lacerations. We know now why the repair of the cervical laceration in many instances failed of bringing the desired result. The symptoms had been wrongfully ascribed to the laceration per se, when in reality collateral conditions and complications existed, which were at fault.

I will not exclude other pathogenic microbes from occasionally giving rise to changes in the cervix which require operation. However, this must be regarded as the exception. Commonly, the gonococcus is the mischievous element in a laceration which gives rise to suffering. I am aware that such discrimination between the different microbes is not made by writers on this subject. Yet the facts which justify such differentiation may be taken from their writings, and the conclusions I draw may be verified by daily observation.

It remains to consider those cases where the cervical tear is associated with a relaxation and laceration of the perineum, or where tumors displace the uterus. In these cases the consequent displacement of the womb produces more or less uterine and pelvic

hyperemia. Incidentally the lacerated cervix is subjected to friction and eversion, and infection may result. Clearly here the cervical conditions are secondary, and the significance of the case is dependent upon the causative factors. The cervical laceration figures as a coincidence, and as such even commonly has little clinical significance.

By way of summary, it may be said that cervical lacerations without complications have little significance. Often the cervical laceration is complicated with disease in the adjoining structures, and the collateral conditions are responsible for the suffering rather than the cervical tear. Cervical lacerations attain significance as such when, firstly, in the recent state they give rise to an infection which spreads to adjoining structures; and secondly, in the remote state, when a pathogenic, notably a gonorrheal infection of the tear, occurs. Even in these cases a relatively small per cent. attain a degree of significance calling for operative recourse.

316 E. Michigan street.

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## A REPORT OF THE EYE AND EAR CASES TREATED AT THE CITY HOSPITAL IN MAY AND JUNE, 1899.

SERVICE OF DR. E. C. ELLETT.

BY HUGH BOYD, M.D.

MEMPHIS.

Resident Physician, City Hospital.

It is proposed in this paper to relate the ophthalmic and aural cases of most importance and interest coming under treatment during May and June, 1899, at the Memphis City Hospital. The first to which we would call attention are those for the relief of cataract.

We shall first give our method of proceeding and then mention the individual cases.

The bed is prepared as for any other patient, and put in such a position that a good light from a single source will fall on the patient's face. The operation is done with the patient in the bed in which he is to subsequently lie. The patient's face is washed with green soap and water, being careful not to get any soap in the eyes. Then a cotton sponge saturated with alcohol is rubbed over the face

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until it is clean, care being taken about the lids, lashes and parts neighboring the eye to be operated on. The eye is then washed with a boric acid solution, and a clean towel is put over the forehead and scalp. The dressings consist of two circular or square pieces of plain sterilized gauze two inches and a half in diameter and of two thicknesses, two pieces of absorbent cotton the same size and shape as the gauze, three strips of adhesive plaster one-third of an inch wide, one five inches long, the others three inches. The instruments used are cleansed in boiling water and then in alcohol.

About ten minutes before the operation is to begin one or two drops of holocain solution are dropped in the eye, and repeated every two or three minutes until six or eight drops are used. This insures complete anesthesia of the eye and the pupil is not affected. It is an active antiseptic. No untoward effects have been seen, and withal it is an admirable local anesthetic.

The operator and one assistant prepare their hands in the usual manner, and the operator takes his seat back of the patient's head, operating on the right eye with the right hand, and on the left eye with the left hand. The lids being separated with a speculum, the usual cataract operation as described in all the textbooks is done. Preference is given to the operation with iridectomy, since even those of the greatest skill and experience cannot eliminate the danger of prolapse of the iris from cases operated on without iridectomy, and, without going into details, the disadvantages and dangers, immediate and remote, of this accident are such as to make it extremely undesirable.

At the completion of the operation the speculum is removed, atropia instilled and dressings applied. The pieces of gauze are put over both eyes and over them is placed the cotton. These are held in place by the adhesive strips, one extending across both eyes and ending at each temple; the other pieces begin at the center of the forehead, pass over the eye and end on the cheek just below the malar bone.

The patient is kept quiet in bed until the corneal wound closes, is given light and liquid diet. In twenty-four hours the incision is generally found closed, and atropia solution (grains iv to f3j) is dropped in the operated eye three times daily. This is kept up; the dressings are changed once a day, and left off after the fourth

or fifth day, the patient then allowed to walk around the ward, and about the twelfth or fifteenth day is discharged.

The following is a list of those treated :

Name	Age	Sex	Kind of Cataract	Dura- tion	Compli- cations	Operation	Conva- lescence	Secondary Cataract	Result	Remarks
C. W.	71	F.	Hyper mature.	3 yrs.	Atrophy of suspensory ligament.	With iridectomy	Surgically uneventful	No.	Good. No test.	Convalescence marked by attack of mania.*
F. T.	25	F.	Capsular.	5 yrs.	Corneal opac- ities and post. synechie.	Extraction with preliminary iridectomy	Delayed closure of wound.	.....	Unimproved.	Operation done for relief of occlusion of pupil.
S. J.	75	F.	Senile.	7 yrs.	None.	With iridectomy	Good.	Yes.	Very good.	No test of vision yet.
S. J.	75	F.	Senile.	7 yrs.	None.	With iridectomy	Late re- opening of wound.	Yes.	Very good.	No test of vision yet.
P. S.	88	M.	Senile.	6 yrs.	None.	With iridectomy	Iritis.	Yes. (operation)	+11.00=18	.....
P. S.	88	M.	Senile.	6 yrs.	None.	Without iridectomy	No trouble.	No.	+10.00 - +1.00 of. al. 90°=18	Very tough capsule removed.
W. W.	75	M.	Senile.	3 yrs.	None.	With iridectomy	Good.	No.	+8.00 - +1.00 of. al. 180°=18	.....
C. L.	26	M.	Soft.	7 yrs.	None.	Without iridectomy	Good.	No.	+11.00 - +2.00 of. al. 180°=18	Attempted simple linear extractions, but lens was too firm.

\* See Memphis LANCET for July, 1896.



## 230 EYE AND EAR CASES TREATED AT HOSPITAL.

*Corneal Affections.* There were quite a number of corneal ulcers treated, and two cases of vascular keratitis, one of which was of traumatic origin, the other strumous. One colored boy was in with a continued fever to which the physicians in attendance could not assign a cause, and an interstitial inflammation of the lower half of the left cornea, which treatment did not seem to influence. It disappeared with the subsidence of the fever. His urine contained abumin, hyaline, fine granular and epithelial casts, leukocytes, blood corpuscles, and epithelium from the uriniferous tubules. His blood did not give the typhoid reaction, but showed some evidence of malarial infection.

*Iritis.* As many of the hospital patients are negroes, who are practically all syphilitic, it was natural to expect to see some cases of iritis. Those admitted during the months of May and June were all of the plastic variety and without any special features.

*Glaucoma.* One case of glaucoma was admitted, and the history being of interest is reproduced from a report made by Dr. Ellett to the Memphis Medical Society.

"J. W. M., age 55, was taken sick on Jan. 4th, 1899, with violent pains in his eyes and head, and became in a few days blind. It was said by his attendants that he had neuralgia, and would recover. Dr. N. R. Townsend, of Black Rock, Ark., saw him about May 1st, and made a diagnosis of glaucoma. He brought him to me May 31st. The case was typical double absolute glaucoma, with dilated pupils, shallow anterior chambers, steamy cornea, and balls of almost stony hardness. He was absolutely blind and in constant pain, requiring that he be kept under the influence of morphin. In consultation with Dr. Sinclair an operation (iridectomy) was advised for the relief of the pain, but declined. He was passing a small quantity of highly acid urine, and was therefore put on alkalin diluents and hot water and eserin (gr. vi to the oz.) locally. The balls became a little softer and the pain so much better that he was able to do without an opiate. The sight did not improve."

This case illustrates the disastrous results of a failure to make a diagnosis in glaucoma, since in many cases the sight can be saved if taken in time. Neuralgic pains in the head and eye, with loss of sight, are very apt to mean glaucoma, and in such case an eye surgeon should be consulted at once.

*Panophthalmitis.* One case of panophthalmitis was treated.

The condition resulted from getting a cinder in the eye, the small wound thus caused becoming infected. Although this had happened but five days before his admission, his eye was found to be full of pus, all details of iris, pupil, etc., being obliterated. The cornea sloughed, and as his pain subsided he took French leave in a few days after his admission.

This case illustrates the necessity of early removal of foreign bodies from the eye, and the importance of cleanliness in apparently trivial wounds of the eye.

*Sympathetic Ophthalmia.* One case of this distressing affection was treated.

The patient had been shot in the right eye fourteen years before, destroying the sight. Ten years later the left eye began to fail, then became quiet till a year ago, when it again began to lose vision and is now quite blind. The right eye was shrunk and was enucleated. The left eye showed evidences of neglected irido-cyclitis, a common manifestation of sympathetic ophthalmia. An iridectomy was proposed, but declined.

*Mastoid Abscess.* One operation was performed. The following are the notes of the case:

Mrs. L., aged 50, was sent to Dr. Ellett by Dr. N. F. Raines, of White Haven, on April 26, complaining of intense pain in and around the right ear of several weeks duration. It had begun as a typical acute otitis media, with intense pain and impaired hearing, the pain subsiding after a day or two with the appearance of a discharge at the meatus. It did not entirely disappear, however, but became more dull, constant, and at first frontal in location, but later more pronounced in the temporal and parietal region. She said there had been a profuse nasal suppuration, but this had ceased. She had when first seen a discharge from the right ear, the mastoid was painful, tender and swollen, there was a "dip" of the postero-superior wall of the canal, and a swollen and tender point in the course of the anterior temporal artery above and in front of the ear. She was put to bed, given a purge, the ear syringed with hot boracic acid solution at frequent intervals, and ice-cold applications made to the mastoid, on three hours and off one. She was a morphin habitué, and more on this account than for any great pain she required an opiate almost every night. Her temperature ranged from normal to 100°, and the pain and tenderness also changed, getting worse and better without "rhyme or reason." The discharge from the ear entirely ceased. On May 1st the mastoid pain and swelling increased, and operation was advised and done next day in the usual manner. As soon as the chisel went through the cortex pus appeared, and the cavity was curetted till the purulent and granulating debris was removed, and the antrum opened. The ear and wound were then packed, sutures put in above and below the exit of the gauze drain, and the patient put to bed in good condition. Her convalescence was not marked by any unusual or unfavorable symptom. She was quite noisy at night, more for want of morphin than any other reason, but her general condition was excellent. The dressing was removed for the first time on the sixth day, when the stitches were also taken out and the packing renewed. There was some pus around the gauze, but none at all retained in the wound. On the 13th day she was presented to the Memphis Medical Society, the wound, except at the exit of the drain, so perfectly healed that one who had not seen the operation could scarcely discern the extent of the incision. This soon closed, and the result was quite perfect.

## GUNSHOT WOUND OF THE SUPERFICIAL FEMORAL ARTERY AND VEIN.

BY JOHN M. MAURY, M.D.

Surgeon to the St. Joseph's Hospital, the City Hospital and the Leath Orphan  
Asylum; Assistant Surgeon to the Lucy Brinkley Hospital.

MEMPHIS, TENN.

J. S., colored, male, age 30, entered the City Hospital on the night of May 27, 1899, with a gunshot wound of the left thigh. The wound had been dressed temporarily by a physician outside the hospital, who reported that hemorrhage had been quite free, and that he suspected injury to some large vessel. On removing the dressing next morning the hemorrhage was very profuse, the blood spurting three or four feet. Elastic constriction was at once applied, and the patient removed to the operating room. The wound of entrance was a little to the inner side of the apex of Scarpa's triangle, and the wound of exit on the posterior inner surface of the thigh a little lower down. After cleansing the limb an incision was made through the wound of entrance, parallel with the long axis of the limb, and carried down, by blunt dissection, along the track of the ball. The vessels were soon come upon. The artery was almost completely divided, and the vein completely so. Lifting the anterior crural nerve to one side, the ends of the vessels were caught with forceps, which were left on, no ligatures being applied. The wound was lightly packed with gauze, and a sterile dressing applied. The limb was wrapped in cotton and kept slightly elevated. As the patient was quite anemic, a pint of deci-normal salt solution was given endermically. The packing was removed and the forceps taken off on the fourth day. The wound healed by granulation, without suppuration, and he was discharged July 5 entirely well.

I am led to report this case because of the slight mention of this condition in textbooks on surgery. Several authors whose books were consulted give nothing at all, others treat of injuries to arteries and veins separately, while one states that, because of the liability to gangrene of the limb in consequence of the injury, amputation had better be resorted to at once.

Primary amputation I think bad advice, because, as in this case, gangrene may not occur, and if it should, amputation can then be done at the seat of injury. In this way the patient can be given the benefit of the doubt, and at least an attempt is made not to sacrifice the limb.

The secret of preventing gangrene undoubtedly lies in the prevention of infection of the wound; therefore all precautions to gain this end should be employed. In addition the whole limb should be cleansed, and any abrasions found on it particularly cared for, lest they should, in the condition of lowered vitality of the limb, furnish the infection atrium.

111 Court street.

## SUPERHEATED AIR IN TREATMENT OF DISEASE.\*

BY M. GOLTMAN, C.M., M.D.

MEMPHIS.

Physician to the City Hospital; Surgeon Shelby County Poor and Insane Asylum and the Leath Orphan Asylum; Co-Editor Memphis Lancet, etc.

The application of heat for the relief of bodily ailments has been in vogue from time immemorial, chiefly in the form of steam, poultices and hot water. The amount of heated moisture that the human body can stand will average about 120° F.; this temperature continued for any length of time is inimical, however, to the integrity of the tissues. Stokers, puddlers and copper smelters, on the other hand, bear for hours temperature ranging from 170° to 200° F. in well-ventilated rooms, with, quite often, agreeable and soothing effects.

The essence of the quality of a high temperature is its dryness, and when absolutely dry a temperature of 400° F. can be borne for several minutes with most marked benefit in certain well-selected cases. The application of high degrees of heat to the entire body is dangerous at times. Its local application, however, finds few contraindications.

Heat will relieve pain, and often will abort simple inflammations. Its effect on specific processes is still *sub judice*, but nevertheless sufficiently encouraging to warrant further trial.

[The machine, which was exhibited, is made by Lentz & Sons of Philadelphia, and is well adapted for most all local applications.]

*Technique of Application.* The temperature is allowed to reach 200° F.; the patient's limb is then carefully but loosely wrapped, surrounded by a blanket or rough towels, special care being taken to allow considerable air space between the blanket and toes or fingers, and also that the limb just within the iron rim of the machine be thoroughly protected to prevent burning from the heated metal; the canvas hood is now made tight about the limb.

The average treatment should last from one-half to one hour. It has been my practice in delicate patients to give treatments rang-

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\* Read before the Memphis Medical Society.

## 234 SUPERHEATED AIR IN TREATMENT OF DISEASE.

ing from ten to thirty minutes and repeat them two and three times a day, with very marked benefit.

Pain in the fingers and toes is usually experienced in the beginning as a result of the acute hyperemia, but it rapidly disappears; when it does not, the temperature can be quickly reduced by regulating the gas pressure, or opening some, or all, of the numerous valves of the machine. Should the heat still be unbearable, the door of the machine may be left open and a large towel thrown in, which will absorb a large amount of heat and thus reduce the temperature, which should then again be gradually raised to the point of tolerance.

Immediately after the application the limb is washed with alcohol and quickly dried and massaged; the massage is of especial benefit in joint affections, especially in ankylosis. After the application the limb or part is extremely hyperemic and bathed copiously with perspiration, the skin is soft and pliable, and pain, if present before, is completely relieved or much improved.

Ringer has shown that heat impedes or destroys the electrical current of nerves, making it fair to presume that a part subjected to this influence is less able to conduct impressions to and from the brain. A gradual loss of weight and strength follows if the treatments are used for too long a time; seventeen pounds were lost in thirty consecutive treatments by a patient of O'Malley's; hence weak and anemic patients should not be treated daily, and the sittings should not be prolonged. The treatment must produce a sense of comfort, and not fatigue.

The temperature of the patient is raised from one-half to one and one-half degrees between 270° and 320° F., and the pulse will beat between 92 and 120. Sonnenberg says the temperature rapidly rises shortly after the application of heat, and considers this rise of temperature consecutive to the overheating of the blood. In fat people, however, the elevation of the central temperature is less demonstrable than in thin subjects, and the relief of pain not apparent for several hours after heating; often the pain is at first increased.

Microscopic examination of the blood drawn from the part subjected to treatment shows an excess of red cells.

Kirby and O'Malley report 300 cases treated at St. Agnes' Hospital in Philadelphia, with a grand total of 910 heatings, including

157 cases of recent sprains, 8 of the shoulder joint, 18 of the knee, 55 of the ankle, 24 of the thumb, and 23 of the fingers, with most excellent results. The Cook County Hospital reports of Chicago embrace an equally large series of cases, with even more gratifying results.

My own experience is of course limited, but nevertheless sufficiently encouraging to warrant the statement, that under no plan of non-operative treatment will hydrops articuli, functional ankylosis resulting from wearing retention apparatus (as in fracture), plastic synovitis, tendo-synovitis, and sprains, disappear with such rapidity as after treatment with superheated air; especially is this so when these conditions are acute. In chronic conditions, although the pain is relieved and much good done otherwise, the great benefits are seen mostly in acute cases. The destruction by high temperature of the tubercle bacillus makes it worthy of mention that a case of lupus and another of tubercular arthritis were apparently cured by hot air treatment. Kirby and O'Malley also report good results from it in the treatment of chronic varicose ulcers. Callosities in tendons and in joints, especially when accompanied with systematic movements and massage, are much benefited. The pain and swelling of arthritis deformans are much relieved, but the course of the disease is unaffected, and if used severely it may do great harm. My experience in this disease and in other neuritic processes has been so unsatisfactory that I have almost abandoned its use in such affections. In acute rheumatism the results are simply magical; I have on several occasions reduced swelling to the extent of two and a half inches with one application.

Porter Building.

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**AMENDED SPELLING.**—The Department of Superintendence of the National Educational Association, at its meeting in Indianapolis, Ind., Feb. 17, 1898, appointed a committee to recommend a list of words with simplified spelling for use in the published proceedings of the Department. The report of the committee was duly made, and at a meeting of the Board of Directors of the N. E. A., held in Washington, D. C., July 7, 1898, the action of the Department of Superintendence was approved and the list of words with simplified spelling adopted for use in all publications of the N. E. A. as follows: Program (programme); thoro (thorough); thorofare (thoroughfare); tho (though); altho (although); thru (through); thruout (throughout); catalog (catalogue); prolog (prologue); decalog (decatalogue); demagog (demagogue); pedagog (pedagogue).

## CORRESPONDENCE.

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### THE EXAMINATIONS FOR LICENSE TO PRACTICE MEDICINE BY THE MISSISSIPPI STATE BOARD OF MEDICAL EXAMINERS.

MEDICAL DEPT. TULANE UNIVERSITY OF LA.,

*Editors Lancet :*

Sept. 25, 1899.

DEAR SIRs—My attention has been called to statistics, attributed to the LANCET, of the examination of applicants for license before the Mississippi State Board of Health. I enter my protest against the injustice to medical colleges of such publications, unless accompanied by the statement that said Board permits undergraduates to be applicants, and the *division* of such statistics into two categories of "No. applied, No. passed, No. failed," viz.: as to (1) graduates, (2) undergraduates. Your statistics imply that the Tulane Medical College had twenty-five applicants who were graduates, and of these six failed. This natural implication is a false one, for I have reason to believe only one of our *graduates* failed; other failures were of undergraduates.

Yours truly,

S. E. CHAILLÉ, M.D., *Dean*.

[In reply to this letter we stated that the results were published as furnished by the Secretary of the Mississippi Board, in which we knew that graduates and undergraduates were both included. We do not desire to do any medical school an injustice, and suggested to Dr. Chaillé that we publish his letter. His reply is as follows :—Ed.]

MEDICAL DEPT. TULANE UNIVERSITY OF LA.,

*Editors Lancet :*

Oct. 2, 1899.

DEAR SIRs—My letter was written in haste and not for publication. I still protest that it is a great injustice to medical colleges to publish the statistics of the Mississippi State Board as to applicants for license to practice medicine from the different colleges, unless these statistics be accompanied by the statement that said Board permits undergraduates as well as graduates to apply, and specifies the number of undergraduates as well as of graduates who failed. This protest you are at liberty to publish, or, as I believe would be wiser, make out of its substance an editorial, doing justice to the colleges and protecting them from the very unjust and injurious inference that all who failed were graduates. In truth, it is rare for a graduate of ours to fail, and a majority even of our second-course students are passed.

Yours truly,

S. E. CHAILLÉ, M.D., *Dean*.

# THE MEMPHIS LANCET.

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Porter Building,  
Memphis, Tenn.

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## EDITORIALS.

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### STANDARDIZATION OF DRUGS.

It seems inconceivable that scientific physicians of the present day should dispute the advisability of reducing galenical preparations to a standard of strength. The history of medicine has been one long struggle to eliminate empiricism and bring therapeutics nearer to the basis of an exact science. It is true the human body is not a test tube, wherein may be mixed reagents to produce definite chemical reactions; nor can we always know the idiosyncrasies of individual patients. But that is no reason for failing to take advantage of advanced methods in the preparation of our remedies. Because medicine of standard strength will not always produce the same results in various individuals, shall we discard accuracy in dosage to the great majority, upon whom it will act properly? Did we do so, we must furl the banner our predecessors have carried in the van of progress. Their constant aim has been for exactitude in diagnosis and in treatment. Shall we discard the fruits of their labors, and be content today with a preparation of cannabis indica or of ergot that may represent ten times the strength of another specimen of the drug used yesterday? What matter if the test be physiological or clinical, if it be accurate? We want a unit as a basis, and to us it seems proper that a certain quantity of the active principle or principles should represent that unit.



Then every preparation of a drug should contain a definite quantity of such active principle, whether it were obtained from one or a thousand pounds of the crude drug.

It may be contended that the tests, chemic and physiologic, necessary to determine the ingredients of crude drugs are beyond the reach of the small dealer—that such changes will make the apothecary a mere shopkeeper, instead of a dispensing chemist. But we have listened to such arguments against every great improvement of our civilization. Let a new piece of machinery be invented, and the mill employees will shriek that the bread is taken from their mouths. Build a union depot, and the truckmen and hackmen will bewail their downfall. The great good bestowed on humanity in general is lost sight of in the petty ills to which that small set is subjected. It is the onward march of destiny; if we wish to lead that fateful march to better things we must not hesitate at convenience. If we stop to play at politics the wheels of progress will sweep on and over us, leaving new isms to arise from the mangled remains.

One great good to be accomplished by standardization would be the wiping out of any excuse for the existence of those petty thieves, the adulteraters and substituters of medicines. At present these people claim that possibly their drug was old, or lacking in the active principle, or else the preparation you had before was too active anyway. When caught up with, it is distinctly not their fault, or if attributable to them, certainly not their intention to defraud. In view of this we say most emphatically that the standardization of drugs would be the greatest advance possible at the present time by our profession. It is demanded by the spirit of the times, and if any of another era would clog the wheels, the sooner they step down and out, even weighted though they be with years of wisdom and experience, so much the better will it be for us and for our patients.

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#### SO CALLED CHRISTIAN SCIENCE.

The cult, misnamed Christian science, which is neither Christian nor science, has apparently taken on new life. It has recently been decided that it is lawful to practice it in the State of Illinois, and we are informed that our own law cannot prohibit the practice of

this and other systems which do not administer drugs. The recent "passing" (i. e., death) of three prominent citizens in this city under the ministrations of its disciples, will, we hope, awaken some public antagonism to its practice and bear fruit in the limitation of its dangers. In one of the cases alluded to we are informed that proper medical attention could probably have avoided the unfortunate issue, and at any rate would have granted the sufferer the relief an opiate would have afforded—a relief which she desired and asked for, but which was denied her. Mark Twain has wielded his pen to good purpose in the October number of the *Cosmopolitan* against their extraordinary teachings, and we are glad to note that his article, written in a style combining keen satire with much serious argument, has attracted very general attention. It can hardly be doubted that the devotees of this cult are afflicted with a form of mental aberration, which, in extreme cases, approaches the fanaticism seen in the inhabitants of the far East, whereby persons under the influence of religious frenzy can permit the infliction of any amount of bodily injury. In a recent number of the *Wide World Magazine* is a description of one of these exhibitions, in which the victim is hooked in the back and lifted up by this hook on a sort of derrick, and thus suspended, forms the *pièce de résistance* of a religious procession. The enormities of the theory and practice of Christian science would not occupy the serious attention of sane people were it not for the suffering it encourages, the deaths attributable to it, and the spread of disease to which it contributes. The profession, being in a position to see these things, should assume the burden of the effort to secure such legislation as will make them no longer possible. It is unquestionably the privilege of the adult to be treated when sick by any person or system that he elects; but it is an outrage to expose children to it, or to allow it to be so administered as to encourage the spread of disease. It is a fad, and will die a natural death in time, but the number of its adherents and its great possibilities for evil would seem to make it imperative that legislation should be invoked to limit its pernicious activity.

## REPORTS OF SOCIETIES.

### PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

*Regular Meeting, October 3, 1899.*

The Vice-President, Dr. F. A. Jones, presiding.

Present were Drs. F. A. Jones, Williams, Lane, Andrews, Sale, Barton, Alfred Moore, Buford, Goltman, Braun, Black, Ellett, Heber Jones, Hill, Venn and Meyer. Visitor, Mr. Kahn.

*Dr. G. G. Buford made a Report of Cases.*

I. *Amnesic Aphasia.* The patient was an elderly woman, and her principal symptom was the inability to remember certain words. Her memory was good till the present illness. She could not remember the doctor's visits from day to day, and could not apply the proper names to certain people and objects, and could not read certain words when written or printed. Her writing was not tested. There were no eye signs of intracranial pressure and a hemorrhage was diagnosed. The patient is improving.

II. The doctor was called to see a man in semi-coma, with cold extremities, sweat, bronzed skin, temperature of 104°F., and liver somewhat enlarged. He was passing a moderate quantity of urine. He was given an antipyretic and a purge, in response to which he purged so violently as to require an opiate. Later he complained of pain in the rectum, and was found to have impacted feces. The urine contained indican, and the case was regarded as one of *Toxemia from Intestinal Indigestion*. Indican is formed from indol, is eliminated in the urine, and is significant of intestinal indigestion. This urine will stain a napkin. Another dark urine is that containing melanin from a malignant growth. This urine turns black and will not decompose.

*Dr. E. C. Ellett* mentioned a case similar to the first one, which he saw last winter in consultation with Drs. Henning and Hall. The patient was an elderly lady, and presented the same symptoms that Dr. Buford's patient did. She was seen about eight months ago, and during this time has made but little change in her condition.

*Dr. F. A. Jones* reported a case of *Ludwig's Angina*, a disease to which his attention was called by an article on the subject in the *LANCET* by Dr. Tate, of Bolivar. The patient was a colored girl with a tubercular family history, rapid breathing, dry cough, temperature 102°F., and unilateral friction sounds. A week later there was a pleural effusion, which disappeared under reconstructive treatment, though there was broncho-vesicular breathing at the apex on that (left) side, with loss of flesh and continued fever. Two weeks later she developed a swelling of the left inferior maxilla, the temperature and physical signs persisting. There was no trouble with the teeth. The swelling grew larger, involving the neck to the clavicle, and interfering with respiration. An incision under ether found about three ounces of pus sacculated and close to the carotid artery. The cavity was curetted and packed, and while the local and general conditions have improved, the signs of tuberculosis persist.

*Dr. M. Goltman* reported a case of *Gangrenous Colitis*. The patient was a man aged 32, who had dysentery for five weeks before coming under his observation. He was then having from one hundred to two hundred evacuations of a little bloody mucus, with tenesmus, each day. In the rectum a large boggy, fetid mass was found, which proved to be a gangrenous cast of the rectum. The temperature was 105½°F. Malarial organisms were found in the blood, but though removed by quinin, the temperature continued up to 102° to 103°F. Under ether the sphincter was dilated, the bowel cleared of a large black slough, and the raw surface touched with nitric acid and irrigated. This was repeated twice a day for ten days, the whole rectum sloughing away. Pain in the left iliac fossa developed, followed by the passage of a slough eleven inches long and a profuse hemorrhage. The pain then disappeared. The patient rallied and was better for a week, when he passed a clot as large as two fists, containing a smaller cast. The patient then declined, with symptoms of concealed hemorrhage, the bowel movements continuing till death.

*Dr. Heber Jones* said that these cases are rare, and in his experience the treatment is very unsatisfactory.

*Dr. Buford* has followed out the rectal irrigation treatment of diarrheas and dysentery with good results. In one case somewhat similar to Dr. Goltman's the patient died of sepsis and inanition.

In another case recovery followed treatment with irrigation, codeia and antipyretics, but the patient has a cicatricial narrowing of the rectum and occasional fecal impaction which is relieved by castor oil.

*Dr. F. A. Jones* said that over 99 per cent. of these cases die. He had had two, both complicated with abscess of the liver, which was diagnosed ante mortem and confirmed post mortem. In one patient operation was not advised; in the other it was advised but declined. He referred to H. C. Woods' suggestion of nitrate of silver irrigations.

*Dr. Goltman* said that his patient had a hepatitis which was relieved by a fly blister. Stretching the sphincter relieves the pain and tenesmus. It must be done under general anesthesia.

*Dr. Ellett* recalled the fact that the treatment of these cases by stretching the sphincter and local application was originated by a member of this society, Dr. R. B. Maury, under the title of "The Topical Treatment of Dysentery."

*Dr. E. P. Sale* said that in a recent discussion of *Typhoid Fever* one speaker said that typical cases of the disease are rare now, the cases lacking the mental symptoms and tympanites. Since that discussion he had seen two such cases, apparently very mild, and both died from perforation after convalescence was established. He regarded both as a typical typhoid. Many cases of typhoid as it now occurs here are complicated.

*Dr. Goltman* has recently had a similar case.

*Dr. Heber Jones* does not see many cases of typhoid now, and has seen no cases that he diagnosed as typhoid this summer. His fever cases lack the typical symptoms of typhoid fever. All the cases he has ever seen die of perforation were typical cases. He asked the opinion of the society regarding the advisability of an ordinance compelling physicians to report their cases of typhoid fever, in order that the Board of Health might investigate the source and take precautions against its dissemination. He favors it. The blood test is probably the most reliable diagnostic sign, but of course the Board of Health would accept the attending physician's diagnosis.

*Dr. Sale* favors the ordinance, but thinks the trouble would come in making an accurate diagnosis.

*Dr. Jos. Venn* has seen cases of typhoid fever which, while lacking the typical clinical symptoms, gave a positive blood test (Widal).

*Dr. Buford* said that the commission appointed to investigate typhoid fever in the camps in 1898 found that local causes (as water, etc.), did not have much bearing, but the food, change of habits, etc., had. He has seen several typical cases and thinks the disease differs now from what it used to be largely on account of the difference of the food used then and now, yielding a different class of poisons. He thinks tuberculosis should also be reported, and said that in some cities the Board of Health sent out circulars of information in regard to the artificial feeding of infants.

*Dr. Heber Jones* is not willing to admit that food and drink are not direct transmitters of the disease.

*Dr. Goltman* said in regard to sewer gas, that Sternberg found that animals resisting inoculation of typhoid could be inoculated after they were exposed to sewer gas.

*Dr. Alfred Moore* drew a diagram of a typical camp, showing that the earth-pits are in close proximity to the commissary, the foodstuffs being constantly invaded by flies from the earth-pits.

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## PROGRESS OF MEDICINE.

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**THE HYDRIATIC TREATMENT OF PNEUMONIA.**—Macalester (*Medical News*, Sept. 9, '99), after quoting authorities in support of his views, among which Penzoldt with an experience covering 2200 cases, mentions the following indications from Baruch: 1, to stimulate and invigorate the nerve centers with a view to enhancing the patient's vital powers; 2, to prevent and control heart failure; 3, to reduce the temperature; 4, to eliminate the toxins.

Pneumonia patients, especially children, being very susceptible to cold, the temperature must be carefully watched, and for this reason the cold chest compress is advocated. This is composed of three folds of linen or old muslin cut in a manner to fit the chest from above the clavicles down to the umbilicus, with slits in the axillary regions to form flaps and cover the shoulders. It is then wrung out of water so that it does not drip at a temperature of 60°F., snugly applied around the thorax, covered with a piece of closely woven, thin flannel of the same shape but at least an inch wider in all directions, and secured by safety pins. At first the

compress is changed every half hour, then every hour or two, until the patient's temperature is below 100°F., when it may be discontinued. The compress should not be covered with oiled silk, as this converts it into a poultice.

The wet pack is a more severe procedure, and is indicated in the more severe forms with high temperature.

Of course drugs are not entirely dispensed with.

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**THERAPEUTICS OF HOT DRY AIR.**—Kessler (*Amer. Gyne. & Obstet. Jour.*) notes the following effects of hot dry air, used with a magnesia-padded apparatus:

1. A contraction followed in a few minutes by dilatation of the superficial arterioles and capillaries, causing a deep flush to spread over the whole body.

2. The pulse becomes full, strong, and increases from 10 to 25 beats per minute.

3. Increase of the temperature, taken by the mouth, of 1 to 5, rarely 6°, F.; the rectal temperature, normally higher, being usually about  $\frac{1}{2}$ ° F. less than that of the mouth.

4. Induction of a profuse acid perspiration, with increased specific gravity.

5. Almost immediate relief from pain.

6. Relaxation of muscular spasms.

7. General sense of discomfort.

8. Loosening of small stiff joints.

9. Stimulation of the cutaneous nerves and lymphatic circulation.

10. Increase of the alkalinity of the blood, and a temporary increase of the number of corpuscles.

11. Decrease in edematous swelling.

12. Increase in the respiratory movements from 2 to 6 per minute.

13. Marked acidity of the sputum in gouty and rheumatic cases.

14. Nervous restlessness and muscular twitching, if exposed too long.

15. Slight thirst in some cases.

16. Decreased specific gravity of the urine passed immediately after leaving the hot air bath.

17. Limits the inflammatory reactions following the breaking up of adhesions, sprains, etc.

After a number of treatments the secondary results show:

1. Increased secretion of uric acid in lithemic cases.
2. Softening and absorption of deposits of urates, exuberant callus, fibrous adhesions, edema, etc.
3. Reduction and sometimes entire relief of albuminuria in kidney and cardiac disease.
4. Toning of the circulatory apparatus and excretory organs.
5. Moderate loss of weight in the slim, and greater loss in stout people.
6. Great improvement in some chronic skin diseases, and the disappearance of acne in gouty cases.
7. Temporary increase of soreness and nervousness in gouty and rheumatic patients during the absorption of urates and other deposits from the tissues.
8. Debility if subjected to baths daily for a long time.

Before the apparatus was used the patient was examined, and if found suitable he disrobed, donned a bath robe, and so attired entered the moderately-heated machine, leaving the head and as much of the body exposed as was deemed necessary. A cool, damp cloth was placed upon the head, and the temperature gradually raised to 250° F. After leaving the machine the patient was rolled up in a blanket, allowed to perspire for half an hour, massaged by a Swedish masseur, and then washed and rubbed with alcohol.

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A CASE OF TETANUS TREATED WITH CARBOLIC ACID.—Woods (*N. Y. Med. Jour.*, Sept. 9, '99), having never seen a case recover under any other method of treatment, reports one case treated successfully with large doses of carbolic acid, but does not give credit to the twenty-odd observers who have reported cases treated by this method. Following is a synopsis of the treatment:

As it was impossible for the patient to swallow, ten minims of a ten per cent. solution of carbolic acid were used hypodermatically; fifteen minutes after the first dose twenty minims were injected; fifteen minutes after the second thirty minims were used. Thirty minims were continued throughout the day every half hour, with half a grain of cannabis indica (preparation not stated), which latter was discontinued at night. The carbolic acid was kept up



during the night in dram doses at longer intervals. The patient appearing improved the next day, half a dram of the ten per cent. solution was given every two hours. On the third day the patient was able to swallow, and was given a glycerin solution per os every three hours until the spasms ceased, and then three times a day until all rigidity was gone.

The patient recovered in three weeks. The characteristic urine appeared soon after the beginning of the treatment, but no inconvenience followed the use of the drug.

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VAGINAL CELIOTOMY: ITS SCOPE AND LIMITATIONS.—Goffe (*Med. News*, Oct. 7, '99) says:

"During the past three years I have treated in this way almost every condition to be met with in the female pelvis—indeed, so thoroughly has the method commended itself to me that with three exceptions I have used it in every case that has come before me for operation. These cases have embraced every variety of disease from simple retroversion with adhesions to prolapsed and cystic ovaries, unilateral and bilateral salpingitis, ectopic gestation, fibroid tumors of the uterus, and dermoid cysts. This method affords opportunity for the most complete and radical work and at the same time lends itself to every form of conservative work upon the uterus and its appendages that has been suggested in the trend of recent modern gynecology. In no case have I yet consummated the operation of myomectomy, but in one instance this conservative measure would have been employed had it not been for the multiplicity of small tumors which contraindicated its application.

"In cases of simple retroversion of the uterus the organ is readily anteverted and delivered into the vagina. The appendages first of one side and then of the other readily follow after and are carefully inspected and subjected to whatever treatment may be indicated. The round ligaments are then shortened by simply looping them upon themselves and stitching the loops together and the vaginal incisions closed with a running catgut suture. This procedure has its most appropriate application in cases of retroflexion in unmarried women. Its advantages are that the healing process goes on unconsciously to the patient, without any more constitutional or local disturbance than normally attends a simple trachelorrhaphy. The patient herself is not conscious of even having had an incision made,

nor does she bear upon her person any trace of a surgical operation. Indeed, in many instances, the wound heals so kindly that often an expert gynecologist even after the lapse of only a few months might examine a patient and never suspect that an incision had been made.

"In cases of retroversion with adhesions of the uretus and appendages the adhesions are promptly broken up, the uterus and appendages delivered into the vagina as before, and such treatment applied as may be indicated.

"In cases of enlarged and cystic ovaries it is my custom in certain cases to excise the degenerated tissue, and in other cases, in which so extreme a measure is not indicated, to apply the ignipuncture, making in some cases as many as ten or twelve punctures with the actual cautery. When the indications demand it one ovary and tube are removed and such conservative work as may be indicated is applied to the opposite appendage. It is my effort and custom in cases in which the conditions justify it to leave a part of one ovary and at least the stump of the corresponding tube. In passing I may say that my experience in this conservative work grows more and more satisfactory. Four patients upon whom varying amounts of conservative work have been done have conceived and borne children, and satisfactory relief from pelvic symptoms has attended the other subjects to a gratifying degree. Large pelvic abscesses involving the tubes and ovaries, buried in exudate and firmly adherent to surrounding tissues, including both the intestines and the omentum, are easily, quickly, and satisfactorily dealt with and with far less shock to the patient, and a much smoother convalescence than formerly attended my work when done through the abdominal incision."

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THE SURGICAL TREATMENT OF FIBRO-MYOMATA.—Prof. Schauta (*Amer. Gyne. & Obstet. Jour.*, Oct., 1899), in a recent paper, draws the following deductions from his large experience in the operative treatment of myoma uteri:

1. Operative treatment for fibroid tumors is not legitimate except when they are the cause of troubles that are not to be conquered by other means.

2. Vaginal total extirpation should be considered as the safest and in the long run most successful operation. It should be per-

formed in all cases when the tumor does not extend above the level of the umbilicus, and when it can be easily drawn into the small pelvis.

3. For large, not easily movable tumors, wholly or partially intraligamentary, abdominal total extirpation should have the preference.

4. Supravaginal amputation, with intraperitoneal treatment of the stump, gradually should be set aside in favor of abdominal total extirpation, although the immediate results of the former are sometimes more favorable. It has been proved that there are more chances for absolute recovery when no part of the cervix has been allowed to remain.

5. In emergency cases supravaginal amputation with extraperitoneal treatment of the stump may be, as it affords facility for speedy and absolute extraperitoneal execution, an advantage not to be underrated in cases of extreme anemia, asphyxia, weakness of the heart and suppuration of necrosis of the tumor.

6. Vaginal enucleation of the broad-based, submucous tumors, by way of the dilated cervix, or by the vaginal formix, after anterior or posterior kolpotomy, with or without opening of the peritoneum, should be only resorted to in cases where there are special indications. Myomata being generally multiple it would not be likely that the operation would afford durable results, and therefore cannot be considered as less dangerous than the radical operation with removal of the uterus.

7. Curettage should be looked upon as an uncertain mode of treatment; is never wholly free from danger, and should be limited to rare cases of beginning myomatous development.

8. Castration should be strictly objected to on the ground of its not bearing comparison with radical operations with regard to reliability and immunity from danger. In quite exceptional cases, when it is not possible to perform supravaginal amputation with extraperitoneal treatment of the stump, it may now and then be resorted to.

9. It is not to be thought that the methodical use of forcipressure affords the patient advantages superseding the use of ligatures except in so far as it facilitates a speedy operation in typical cases. In cases of emergency or danger its use is certainly justified.

10. The full value of drainage of the supravaginal wound for furthering throughout the chances of asepsis and for the avoidance of exudation in abdominal as well as in vaginal total extirpation, should be always kept in mind.

11. The question if removal of the ovaries should be performed with vaginal or abdominal total extirpation is not yet decided. *Ausfall erscheinungen* (climatic symptoms) have been observed either way. If the ovaries are removed they appear immediately; if left back, after weeks and sometimes months.

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ESOPHAGOSCOPY—ITS APPLICATION IN TWO CASES.—Gordon King (*New Orleans Med. & Surg. Jour.*, Oct., '99) reviews the history of the method of examining the esophagus by direct inspection, and calls attention to its superiority over the examination by sounds and probangs.

The principle of the method, as practiced at the present day, consists simply in the introduction into the esophagus of a long metal tube, through which, by means of a head mirror, the light is thrown upon the dark parts and permits of their being inspected and treated under light just as is done for the rectum, the vagina and other accessible organs.

The patient is made to lie supine upon a table with the head thrown back over the edge to straighten the spine and bring the mouth as nearly in line with the esophagus as is possible, then he is made to undertake, with the assistance of the examiner, what corresponds to the sword-swallowing act of the dime museum. This would appear to be a formidable procedure, but in reality is readily accomplished in most cases and with not too much discomfort to the patient. In a tractable patient this is *most* easily done without anesthesia, but in children and nervous persons, chloroform may be administered if urgently required. A little cocain sprayed into the pharynx will allay the irritability of the throat and facilitate the procedure. The instrument employed by Stoerck is supplied with a lobster-tail extremity which flexes one way, and in some cases is more readily introduced than the straight tube. This instrument is about eighteen inches in length, and reaches almost to the cardia; the other is shorter and better adapted to younger subjects. For all purposes a diameter of three-fourths of an inch is about the proper size, and this can be used for children over ten

years of age with safety. Subjects younger than this require a smaller tube, and the results are not as satisfactory, there being always some risk of lacerating the delicate mucous membrane of the pharynx or esophagus in very young children. Another class of patients in which these instruments are not to be applied are those cases in which there exists some curvature of the cervical spine or marked stiffness of the spine preventing sufficient extension of the head to permit of the tube being introduced into the esophagus.

Two cases are reported, one in which a malignant stricture low down in the esophagus was seen and diagnosed, and the other in which the absence of a foreign body was positively determined.

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**THE VALUE OF ANTISTREPTOCOCCIC SERUM IN THE TREATMENT OF PUERPERAL INFECTION.**—The committee (*Jour. Obstet., etc.*, Sept., 1899) appointed by the American Gynecological Society to consider the question of the efficacy of antistreptococcic serum in the treatment of those forms of puerperal fever due to streptococcus infection, sums up the result of their studies as follows:

1. The study of the literature shows that 352 cases of puerperal infection have been treated by many observers, with a mortality of 20.74 per cent.; where streptococci were positively demonstrated the mortality was 33 per cent.

2. Marmorek's claim that his antistreptococcic serum will cure streptococcic puerperal infection does not appear to be substantiated by the results thus far reported.

3. Experimental work has placed grave doubts upon the efficiency of antistreptococcic serum in clinical work, by showing that a serum which is obtained from a given streptococcus may protect an animal from that organism, but may be absolutely inefficient against another streptococcus, and that the number of serums which may be prepared is limited only by the number of varieties of streptococcus which may exist.

4. Thus far the only definite result of Marmorek's work is the development of a method by which we can increase the virulence of certain streptococci to an almost inconceivable extent, so that one hundred billionth of a cubic centimeter of a culture will kill a rabbit.

5. The personal experience of the committee has shown that the mortality of streptococcus endometritis, if not interfered with,

is something less than 5 per cent., and that such cases tend to recover if nature's work is not undone by too energetic local treatment.

6. We unhesitatingly condemn curettage and total hysterectomy in streptococcus infections after full-term delivery, and attribute a large part of the excessive mortality in the literature to the former operation.

7. In puerperal infections a portion of the uterine lochia should be removed by Doederlein's tube for bacteriologic examination, and an intrauterine douche of four or five liters of sterile salt solution afterward. If the infection be due to streptococci the uterus should not be touched again, and the patient given very large doses of strychnia and alcohol if necessary. If the infections be due to other organisms, repeated douchings and even curettage may be advisable.

8. If the infection extends toward the peritoneal cavity, and in gravely septicemic cases, Pryor's method of isolating the uterus by packing the pelvis with iodoform gauze may be of service.

9. The experience of one of the members of the committee with antistreptococcus serum has shown that it has no deleterious effect upon the patient, and, therefore, may be tried if desired. But they find nothing in the clinical or experimental literature or in their experience to indicate that its employment will materially improve the general results in the treatment of streptococcus puerperal infection.

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DOES REMOVAL OF THE OVARIES EXERT A BENEFICIAL INFLUENCE ON THE SUBSEQUENT PROGRESS OF MALIGNANT DISEASES?—Montgomery (*Jour. Amer. Med. Asso.*, Sept. 28, '99) says that his experience with the extirpation of the uterus for cancer has not impressed him with the fact that the individual enjoyed any special immunity against relapse after the removal of the ovaries. It does not seem unreasonable, however, that the ovaries may exert an influence on the circulation in the vicinity of the reproductive organs through the vasomotor system. Nature is economic of her forces. With the removal of the ovaries and the cessation of need for their performance of special functions, the unused organs are no longer so liberally supplied with nutrition, and hence temporary relief, but the history of cancer does not prove that it can be starved out, so relief

must be at best but temporary. A careful consideration of the subject forces him to the conclusion that the apparent relief is afforded through the vasomotor nervous system; that further experience is required to demonstrate not curability, but sufficient palliation and delay in the progress of the disease to compensate the patient for the discomfort of the additional operation; and that such an operation will only be of service if done during reproductive activity.

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**SURGICAL HINTS.**—(*Intern. Journal of Surgery*, October, '99).

If you expect to use a thermo-cautery during an operation, see that your assistant wraps the handle in a sterilized towel before handing it to you.

Don't spend half an hour in carefully sterilizing your hands, and then wipe them on any old towel that is lying around. Work with wet hands if you can't obtain a sterile towel.

An enlarged prostate often projects, as it were, into the bladder, thus increasing the length of the urethral canal. Hence an instrument must often be introduced farther than usual in order to reach the urine.

Look at the foot when a patient complains of enlargement of the femoral lymphatics. A suppurating ingrowing toe-nail or any other septic condition of the toe or foot is probably at fault. If this is properly attended to the glands will soon subside.

Large glands in the neck of adults or old people are very apt to signify that a malignant process is taking place in the neighborhood; hence it is always well to examine the mouth, the tongue, the nose and the throat carefully in such cases.

In general operative work, it is always useful to have two kinds of artery forceps, pointed and blunt-jawed. The pointed artery forceps are most useful for vessels in and near the skin, as they crush less tissue. The blunt-jawed forceps permit more rapid and efficient hemostasis in the deeper tissues.

In the treatment of fractures of the long bones, it is practically impossible to bring the broken surfaces end to end in perfect approximation. Our object is simply to accomplish this as nearly as possible, and in the lower limbs to secure such extension as will result in a bone of normal length.

After amputations, never wait to apply an artificial limb beyond the time when the stump is well healed and the patient is strong

again. Disuse of the stump for too long a time makes it less able to stand the artificial limb. The only exception to this rule is where the operation was done for malignant disease, where early pressure and concussion might favor a return.

In injuries of the skull requiring operation, it is well to remember that the prognosis depends a good deal upon the region involved. Thus in a series of over 800 cases it was found that the mortality was one to sixty when the anterior brain was affected, whereas it was one to thirteen in injuries of the central and posterior regions, and one to four and a half in those situated at the base.

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**TYPHO-MALARIAL FEVER.**—Grandy (*N. Y. Med. Jour.*, Sept. 30, '99) has made a careful study of the combination of typhoid and malarial fevers, and finds that typhoid fever may occur in an individual who has already dormant malarial organisms in his blood; that these organisms produce symptoms either at onset or during the convalescence of the typhoid fever; that they remain quiescent during the course of that disease (only one case to the contrary); that the early malarial symptoms may be checked by quinin without influencing the course of the typhoid fever; and consequently that the two diseases should no more be classed as a "mixed infection" than typhoid fever and measles occurring in the same person.

Before concluding, it would perhaps be well to look more narrowly at the term typho-malarial fever, and see what conditions would justify its use. There seem to be only three such conditions possible:

1. *A Distinct Disease.* That is, one caused by an organism distinct from the malarial plasmodium and the typhoid bacillus. No one now maintains that such a disease exists.

2. *A Mixed Infection.* Here the two diseases must be so intimately blended that they in reality form a new disease. No evidence of such a blending has yet been found, though thousands of cases have been examined.

3. *As to Coincident Diseases.* Here typhoid and malarial fevers simply coexist as two independent diseases. We have seen that this really does occur in some instances. But is this connection sufficient to justify a new name? The malarial symptoms under such circumstances occur either at the beginning or during the convalescence of the typhoid fever, but remain quiescent during



the course of the latter disease. They are usually easily controlled by quinin, while the typhoid fever continues its usual course. In this connection, as Dock says, "there is no more reason to speak of a mixed infection than there would be in a simple case of pneumonia to speak of a mixed infection because streptococci were found in the mouth."

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FACTS AND FALLACIES IN URINALYSIS.—Schaefer (*Medical Record*, Sept. 16, '99) deprecates the use of the heat test for albumin, on account of the many sources of error in this test. A positive reaction may result in the absence of albumin, and vice versa. The errors may be avoided by not boiling the urine, and resorting to the nitric acid, picric acid, and ferro-cyanid of potassium and acetic acid tests, all of which, says the author, are simple and reliable. Turbid urine should, of course, be filtered.

The phosphates may result from the burning of organic compounds, nuclein, protargon and lecithin within the organism; there is also a relation between the destruction of leukocytes and the excretion of phosphoric acid. Pathologically there is no relation between the amount of phosphoric acid excreted and the pathologic changes in the tissues, since the greater part comes from the food.

The uric acid theory next comes in for criticism. Precipitation after standing is still believed by some as an evidence of excess, although the quantity may be actually diminished; high grade of acidity, poverty in mineral salts, low percentage of pigmentation, and long standing, are all causes of the deposition of uric acid. On account of greater solubility in warm urine, deposits occur more frequently in winter. The excretion of uric acid varies within very wide limits, both in health and in disease. Von Noorden holds the opinion that the gouty process can be traced back to a specific local inflammation of the respective tissues; these changes, including necrosis, tend to cause a precipitation of various salts, including urates. In leukemia, uric acid is greatly increased, yet no deposits result. Oxalate of lime is another rich field for the faking urinalyst. This is a normal constituent, and changes with the character of the food.

The crosses encountered with Fehling's solution are next considered, but instead of recommending another test, the author counsels the use of the *tactus eruditus*.

As to casts, there are true, pseudo-casts, and cylindroids. Only the true casts have great diagnostic value. The epithelia of the entire urinary tract may be present in healthy urine. There is no way to distinguish between those from the bladder, ureters and pelves. Leukocytes are only significant if present in increased numbers; their source cannot be ascertained from the urine, says this iconoclast, nor does the diazo reaction of Ehrlich have any diagnostic significance whatever; it may even be present in the urine of healthy subjects.

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CASES OF TABES IN JOHNS HOPKINS HOSPITAL AND DISPENSARY FROM MAY TO DECEMBER, 1898.—H. M. Thomas (*Bulletin of Johns Hopkins Hospital*, April, '99) gives the following analysis:

Of 111 cases 106 were in whites, 5 in negroes; 70 patients were natives of this country, 17 were German, 6 were Irish. The negroes represented 10 per cent. of the dispensary cases, but in the cases of tabes their percentage was only 4.5. This difference is of interest when the question of the relation of syphilis to tabes, admitted by the majority of authors, is considered. Syphilis is very common in the negro—5½ times as frequent in men of the black race, as in men of the white. Notwithstanding this, tabes is rare in the former. Of the 111 patients, 14 were women. Five of these were of the higher social strata. The time of onset of the tabes occurred most frequently between the ages of 30 and 50; the youngest case was 25, the oldest 66. The duration at the time of examination in 104 cases was as follows: 1 year or less, 18 cases; between 1 and 3 years, 34; between 3 and 5 years, 17; between 5 and 10 years, 24; between 10 and 20, 10; 30 years, 1 case. Regarding etiology, Thomas, who is a believer in the syphilitic origin of tabes, found certain syphilis in 42.1 per cent.; possible or probable syphilis in 63.1 per cent. On this point he enunciates the following conclusions: (1) in a large proportion of cases of tabes, a history of syphilis can be obtained; (2) in a not inconsiderable number of cases there is no history of a venereal sore or other syphilitic manifestations; (3) in negroes, tabes is relatively uncommon, whereas syphilis is much more common in them than in the white population; (4) the partial immunity of women is greater than can be satisfactorily accounted for by the relative infrequency of syphilis among them.

The following occurred as initial symptoms: Pain, 57 times; ataxia, 24 times; numbness, extremities, 6 times; eye symptoms, 20 times; nausea and vomiting gastric crises, 4 times; paralysis of bladder, 5 times; loss of sexual power, 1 time; paralytic attacks, 2 times; mental symptoms, 1 time; neurasthenia, 1 time.

Among the subjective sensations, pain was prominent; girdle pain was present in 27; gastric crises in 9; laryngeal in 2; rectal (and penile) in 1; optic atrophy was found in 11; eye muscle paralysis in 33; Argyll-Robertson pupils in 70; in 8, slight reaction to light was present, and in 21 the pupillary reflexes were normal. Ataxia was present in 91, absent in 8; the knee jerks were normal in 4 cases. Objective sensory disturbances were present in 78 of 90 cases; typical arthropathies occurred in 5, and perforating ulcer in 5. Mental symptoms were present in 7; in 1, epilepsy had lasted from the fourteenth year up to the time of the onset of the tabes, at 44.—*Phila. Med. Journal*.

**THE EFFECT OF ENTRANCE OF AIR INTO THE VEINS.**—The *Ther. Gazette* reviews an article by Sternberg in the *Centralb. fur Chirurgie*, No. 11, '99, in which he details two cases where air entered the veins and gained access to the heart during operation for removal of tumors about the clavicle.

In the first instance a woman aged 61 years, with normal lungs and heart, was operated upon for malignant adenoma of the right lobe of the thyroid, when a short, loud wheezing sound was heard, and a very loud gurgle accompanied each heart sound; the respirations became superficial and the pulse slow, but there were no further bad symptoms and the patient soon recovered. The cardiac gurgling sound ceased in a few minutes. The cause of the entrance of the air was the tearing of the external jugular vein. Death occurred from pneumonia on the 15th day.

The other was a similar case, in which a rhythmic, gentle, sucking sound was heard; symptoms of syncope came on, the heart beat loudly against the chest, and a loud gurgling sound was heard, while the normal sounds were absent. This sound was so loud that it could be heard by bystanders. Artificial respiration, faradization, and massage of the heart were tried and complete recovery ultimately resulted. The writer of the editorial has in a number of instances seen air accidentally introduced into the veins of human

beings with no evil effects ensuing. The presence of bubbles in the cardiac cavities and elsewhere post mortem has in many instances been proven to be due to the development of gas produced by the *bacillus aerogenes capsulatus*.

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SOME IMPORTANT POINTS REGARDING PERFECTION OF ASEPSIS.—  
 Carl Beck (*Medical Record*, Oct. 7, '99) announces the following maxims:

1. The superficial surface of the skin of the patient and of the surgeon's hands is sterilized after the principles already set forth. The atmosphere being innocuous, all inorganic material being made aseptic by boiling, the skin surface being aseptitized, and the skin glands which contain bacteria being *hors du combat*, it becomes evident that the only possible source of infection remaining would be the rough manipulations on the part of the surgeon or his assistants.

2. Aseptic gloves are worn by the operating surgeon at least during the skin incision. The assistant who passes the instruments and the one who attends to the wound itself wear gloves throughout the whole operation.

3. After incision the wound margins of the skin are covered with sterile napkins, which are fastened to the wound surface underneath the skin margins with miniature forceps, so that the skin wound is not touched at all during the subsequent manipulations.

4. The knife used for the skin incision must not be used for further incisions. The operation should be performed as rapidly as possible.

5. For uniting the wound margins of the skin the subcutaneous method should be preferred.

6. Forcible manipulations, especially blunt operating, should be avoided.

7. The surgeon and assistants wear sterilized suits or gowns. Their heads must be covered with sterilized caps, because in bending over the field of operation it often happens that the heads of the surgeon and his assistant come in contact, whereby infectious material might be introduced into the wound.

8. Long beards are entirely unsurgical.

9. If a surgeon should suffer from rhinitis, tonsillitis, etc., he should use the most minute local precautions, or would better omit operating until recovery. It is self-understood that a surgeon should

regard it as a crime to operate so long as he suffers even from a slight furuncle on his hand. With the expenditure of a little more time and trouble the same principles can be carried through the private practice also.

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GALL STONES.—Ransohoff (*Jour. Amer. Med. Asso.*, Sept. 16, '99) submits the following propositions:

1. The gall stones found in a gall bladder are generally formed together, that is about one and the same time. Their removal will not be followed by recurrence unless a reinfection of the biliary ways occurs.

2. Cholecystotomy with drainage should be regarded as the normal operation.

3. Save in exceptional cases, the operation should be done at one time.

4. Ideal cholecystotomy or cholecystendesis is not to be recommended.

5. Cholecystectomy is rarely indicated in acute processes. It is more dangerous than cholecystotomy. Since most stones are formed in the gall bladder, cholecystectomy is the more radical operation. It should be reserved for chronic cases in which a restitution of the gall bladder to the normal cannot be expected.

6. Cysticotomy is a safe supplement to incision of the gall bladder for stones of the cystic duct.

7. Choledochotomy with suture and drainage should be considered the routine procedure in common-duct stones. Incision of the duct through the duodenum or from an incision in the loin (Tuffier) will rarely be needed.

8. Cholecystenterostomy has a limited but distinct field of application, i. e., obstruction jaundice from malignant disease or impermeable cicatricial common-duct stenosis.

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TREATMENT OF TAPEWORM BY MEANS OF MORPHIN INJECTED INTO THE PROTRUDING PART OF THE PARASITE.—Kime (*Medicine*, Sept., '99) prescribes the following treatment: The patient does not fast or have any preparatory treatment whatever, except that he eats no breakfast on the morning of the day of treatment. At about 9 A.M. he is given a dose of infusion of pomegranate, or what is far better, of tannate of pelletierin, with one or two drops of croton

oil. The patient should be kept at rest, generally under the personal observation of the physician, for two or three hours, when movements of the bowels will most likely occur and the whole or part of the worm be passed. If only a part protrudes, then a string is tied moderately tight around the worm about three inches below the patient, and half a grain of morphin is injected above the string, directly into the substance of the worm; the part below the ligature is then severed and the stump passed up through the sphincters and left there about ten minutes. A large injection of water is then given, when the worm with its head will pass, apparently dead.

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A PRELIMINARY NOTE ON THE USE OF ASPARAGUS AS A DIURETIC. Hare (*Ther. Gaz.*, Sept., '99) has experimented with a fluid extract made for him by Parke, Davis & Co., of the tops of asparagus. The first patient had dropsy from cirrhosis of the liver, with gastric disorder and nausea. The urine varied during fifteen days, from 35 to 48 ozs. On the sixteenth day a drachm of the fluid extract three times a day caused a rise to 62 ozs., and in five days the quantity had reached 70 ozs. The drug was continued for twelve days more with a daily secretion of 55 to 65 ozs. and then stopped for nine days and then continued for one month, after which time the dropsical symptoms had disappeared.

In another case, of disordered digestion and marked edema of the legs resulting from a double mitral lesion, and in which only 20 to 25 ozs. was passed in 24 hours, digitalis and bitartrate of potassium failed to produce any diuretic influence. The bitartrate was then replaced with infusion of juniper berries and acetate of potassium, a pint a day without any effect. Fluid extract of asparagus in three days raised the quantity to 40 ozs., and it remained at 35 to 40 ozs. as long as the drug was continued. In a case of atheroma with aortitis and probably fatty heart, no marked effect was produced by the asparagus.

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THE USE OF PAROTID GLAND EXTRACT IN THE TREATMENT OF OVARIAN DISEASE.—Dr. E. Pierre Mallet (*N. Y. Med. Jour.*, August 26, '99) was led to try this extract from the close physiologic relationship between the ovary and parotid gland, and reports twenty cases in which it was used. In five the chief symptoms were severe dys-

menorrhœa and pains in ovarian regions and back, enlarged, tender and prolapsed ovaries. Combined local treatment. Under local treatment did not improve near as rapidly, if at all, as when combined with the extract. He summarizes, though not attempting physiologic explanation :

1. Relieves pains of dysmenorrhœa in all cases without regard to cause, with more certainty than other uterine sedatives.
2. Relieves the dull, aching pains referred to back and ovarian regions, usually designated by such terms as ovarian neuralgia, etc.
3. Menstruation, when deranged, seems to become more regular, less in amount, and shorter in duration.
4. Pelvic exudate seems to become absorbed quicker under massage during its administration.
5. Seems to improve the general health and spirits and relieves the persistent dull headaches of this period.
6. Contraindicated in the cases of artificial climacteric. Causes the flashes of heat and cold to become more frequent and severe.

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THE LOCAL TREATMENT OF PUERPERAL INFECTION.—Dr. Arnold Lea (*Med. Chronicle*, Aug., '99), in a paper on this subject in which he gives an analysis of forty-eight cases, arrives at the following conclusions :

1. A rise of temperature over 101.4°F. during the puerperium, not obviously accountable for by other causes, should lead to a thorough examination of the genital passages.
2. If no sufficient explanation is found in the condition of the perineum or vagina, a uterine douche should be at once given, with due precautions.
3. If within twenty-four hours the temperature has fallen definitely, no further exploration is required, but the douche may be repeated if the temperature again rises.
4. If at the end of twenty-four hours the temperature is higher, and the pulse rate has increased, the cavity of the uterus should be explored with the sterilized finger.
5. If the initial rise of temperature is great (103°F. or over), with or without a rigor, the uterus should be explored at once, without waiting twenty-four hours to observe the effects of a douche. This is more especially indicated if the uterus is bulky, showing delayed involution, since this points to putrefaction of retained products, or to septic endometritis.

6. If clots or placenta are discovered, they should be removed by the finger or curette, a douche given, and a gauze drain inserted for twenty-four hours.

7. In the great majority of cases it is wiser to thoroughly curette the uterus, with the object of removing the whole of the decidua and retained products.

8. There is no evidence that curettage, if done with every precaution, favors the spread of infection. In a large proportion of cases the infection is rapidly checked.

9. In very virulent infection *early* curetting, with the object of sterilizing the uterine cavity, affords the best chance of a successful result.

10. If curettage entirely fails, it must be repeated or not, according to the local condition present. The prognosis, however, in the absence of a definite localization of the infective process, is bad.

11. In some cases, if curettage fails, and there is no evidence of general peritonitis or of infection of the blood stream, vaginal hysterectomy, if performed in good time, may be successful.

12. Antistreptococcic serum should be given early and freely in cases of *proved* streptococcic infection. It is of little use in the advanced stages of the disease.—*N. Y. Med. Jour.*, Oct. 14, 1899.

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CLOSURE OF THE ABDOMINAL INCISION AFTER LAPAROTOMY.—A. T. McCormack (*Amer. Prac. & News*, vol. 28, no. 39) gives a practical plan for those cases which do not require drainage:

1. The retracted edges of the peritoneum are brought into immediate apposition by a continuous suture of fine catgut.

2. If the muscles have been incised they require no sutures, but if their fibers have been separated, as advised by McBurney, the edges should be brought together by numerous buried interrupted sutures of chromicized catgut or kangaroo tendon.

3. The deep fascia should be brought into very close apposition by interrupted sutures of chromicized catgut or kangaroo tendon, placed four to the inch.

4. If not pressed for time, a running suture of fine catgut should bring the edges of the subcutaneous fat together so that clots can not form under the skin.

5. And finally, the edges of the wound should be brought together by a subcuticular, subcutaneous stitch of fine catgut, which coapts the skin exactly and leaves a very slight scar.



**DRAINAGE AFTER SUPRAPUBIC CYSTOTOMY.**—(Editorial *Med. Record*, October 7, '99.) The most generally advised methods of securing bladder drainage are through the suprapubic wound by means of some sort of a tube or even a siphon. The disadvantage of drainage by this route is that fluids persist in declining to run up hill, and in order to escape in this way there must be some *vis a tergo*. The dressings are troublesome, and our success is only partial in getting rid of the discharges, some of which remain in a bladder already the seat of inflammation varying in severity from the least to the greatest. The effect of this retention can only be to maintain and increase the amount of inflammation, which depends as a rule upon qualities in the urine as it enters the bladder or acquired by it while in that organ.

If we add to these sources of irritation the effect of the operative traumatism and the possible invasion of bacteria from the air and other surroundings, it is easy to understand what may be important factors in delaying the healing of a suprapubic wound, especially toward the end of its course when conditions become so favorable for the formation of a fistula. This is in sharp contrast with the behavior of the perineal opening into the bladder, made for the purpose of drainage, after a deep urethrotomy for instance, when the intravesical conditions may be fully as bad as in disease requiring the suprapubic operation. It is unfortunately too common an occurrence, after the latter operation, to have the wound apparently go on to solid healing, and then break open and establish a fistula into the bladder. The reason for this occurrence is certainly not to be found in the skin, fascia, and muscle, but is to be sought in the wall of the bladder and in the cavity of the organ. The mucous membrane of the anterior vesical wall is loosely attached, and its relations are more or less disturbed when the bladder is opened in this region, so that there is a chance for infection and inflammation between this membrane and the rest of the wall. After the operation is complete, conditions are not favorable for accurate suturing even if such were desirable, and when suprapubic drainage is established the edges of the wound are continually covered with urine and pus which act as irritants and interfere with normal healing. The explanation of fistula-formation after apparent solid healing can be found in the mucous membrane at the point where the wound should finally heal. Instead of a prompt re-for-

mation of mucous membrane along the line of incision with very little cicatricial tissue, there is more or less irregularity in the process, and the formation of granulation tissue which is destined ordinarily to become dense cicatricial tissue, but which under these circumstances is perverted from this course. The result of this is the formation of one or more points of unhealthy and sluggish granulation in the interior of the bladder, along the line of the incision, any one of which may give entrance to bacteria practically always present in the urine of these patients. It is then a short step to abscess and fistula and perhaps extensive infection in the cellular tissue of the abdominal wall. The addition of a perineal drain makes the prospect of getting solid and prompt union in the suprapubic wound much greater than if up-hill drainage is depended upon, and the introduction of such a drain is an easy and rapidly accomplished matter. This form of drainage is particularly satisfactory when the bladder is the seat of chronic inflammation, to ameliorate which it is desirable to give the organ complete rest. With the perineal tube carefully kept open by suitable irrigation, the course toward healing in the suprapubic wound is much more satisfactory, and on this account this form of drainage should be recommended as a routine procedure in cases of suprapubic cystotomy, to be discarded only under exceptional circumstances. The annoyance of a persistent suprapubic fistula can hardly be overestimated, and furthermore, its presence involves a certain amount of danger. We are therefore justified in using perineal drainage simply because it increases the chance of permanent recovery, not because it is demanded by any specific intravesical condition. This plan is already carried out by some surgeons in their intravesical work, and its adoption will probably become general, as its desirability becomes recognized.

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THE USE OF CHLOROFORM IN LABOR.—Walker Bourne Gossett (*Am. Prac. & News*, vol. 28, no. 39) thinks that chloroform should be used in all cases of obstetrics, as it has been used many thousands of times, yet not a half-dozen cases of death are on record where it was administered by a competent man. He thinks the following conditions almost completely exempt the patient from danger: the horizontal position, the intermitting in its use, the anesthesia not being profound, the influence of uterine contractions

by which alternate relaxing and contracting the action of the heart and lungs is reinforced. He has not noticed the force of uterine and abdominal contractions diminished by its use, nor does it predispose to post partum hemorrhage.

Dr. J. C. Seere, in the *Amer. System of Obstetrics*, says no proof can be furnished that the parturient woman enjoys a special immunity from the danger of anesthetics, although facts seem to indicate that such exists. Dr. Gossett thinks that if the chloroform is guarded with strychnin and nitro-glycerin the danger and discomfort will be much less than if ether were administered.

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GONORRHEAL SALPINGITIS.—J. W. Taylor, F.R.C.S. (*British Gynec. Journal*, August, '99), in a paper recently read before the British Gynecological Society, submitted the following propositions which he was "disposed to maintain, and on which he invited the criticisms of his colleagues":

1. That a large number of women who are suffering from tubal disease have been at some time or other exposed to the infection of syphilis as well as of gonorrhea. That these undoubtedly show marked improvement after a prolonged course of mercury and iodides, and in the course of this treatment, unless acute pyosalpinx intervenes (in which medicine is useless), it is the rule rather than the exception for all gross physical signs of disease to slowly and permanently disappear.

2. That many cases in which there is no history of syphilis, including cases in which there is an unmistakable history of gonorrhea pure and simple as the sole cause and starting point of tubal disease, do similarly improve and get permanently well under the same course of treatment, provided always that the disease stops short of acute pyosalpinx and its dangerous complications.

3. That acute pyosalpinx is peculiarly liable to occur in the first place on the left side of the body, and its special severity is probably due to secondary infection from the rectum. That cases of pyosalpinx, whenever possible, should be treated by free incision of the posterior vaginal fornix, by thorough exploration and emptying of all pus cavities from the pouch of Douglas, and by iodoform gauze drainage. That this is far preferable to the older operation of removal of the appendages, which is not only much more dangerous, but is peculiarly liable to be followed by fecal fistulæ, an operation sequel sometimes worse than death itself.

4. That such cases of mixed infection and acute suppuration treated by operative evacuation of the pus, with or without removal of the appendages, do sometimes not only recover but remain permanently well without further treatment, the acuteness of the inflammation appearing to terminate the process of infection. In other cases recovery is not so complete or relapses are met with, and these cases should be followed up by a course of specific treatment, the beneficial result of this being often immediately manifest when the wound tissues are unhealthy and the healing is delayed.

5. That occlusion of the tubes and peritubal adhesions consequent on gonorrheal adhesions have no direct specific causation, and must be regarded rather as secondary mechanical results of the local peritonitis which has been caused by salpingitis. Their absorption and disappearance will not therefore be necessarily secured by the cure of the gonorrhea, and sterility may persist although gonorrhea is entirely eradicated from the system.

6. That in gonorrhea of the pelvis there will probably remain a residuum of intractable cases, particularly cases of complication with other diseases, such as fibroids of the uterus. That in these cases operative removal of the organs affected will still be required, and that vaginal hysterectomy whenever possible, with or without extirpation of the uterine appendages, is not only the most rational operation in theory, but is productive of the best final results.—*N. Y. Med. Jour.*, Oct. 14, '99.

BETA-EUCAIN AS AN ANESTHETIC IN EYE, NOSE AND THROAT WORK. Poole, (*Med. News*, Oct. 21, 1899,) concludes as follows:

1. Eucain is decidedly less toxic than cocain, therefore superior to it.

2. Its aqueous solutions keep well and can be sterilized by boiling without destroying the activity of the drug.

3. It produces anesthesia equally well and sometimes better than cocain.

4. It is superior to cocain in that it does not cause heart depression or other unpleasant effects.

5. It does not cause mydriasis or disturbances of accommodation, which is an advantage in some cases.

6. It is less dangerous to the cornea than cocain inasmuch as it does not cause desquamation of the superficial epithelium.

NOTE ON THE SIMILARITY BETWEEN *BACILLUS ICTEROIDES* AND *BACILLUS CHOLERÆ SUI*S (*Appendix A, Report of the U. S. Yellow Fever Commission*).

Drs. Geddings and Wasdin, seeing in the *Medical News* the preliminary report of Reed and Carroll showing the typic lesions of hog cholera in pigs inoculated with *bacillus icteroides*, append this report to their official communication.

They criticise the above report, inasmuch as only one of the cases is mentioned in Reed and Carroll's report, the second being infected from the first animal itself. The experiment of infecting specifically susceptible animals in infectible territory with *bacillus cholerae suis*, by feeding with cultures of *bacillus icteroides*, must be regarded as questionable evidence, especially since two domestic pigs infected with the most virulent cultures of *bacillus icteroides* in their hands gave contrary results; these experiments were conducted at the Delaware Breakwater Quarantine, where accidental infection with hog cholera could be excluded. It may be that Drs. Reed and Carroll had a contaminated culture (which these investigators deny) or the introduction of the hog cholera was accidental.

Geddings and Wasdin also express surprise "that these observers, after stating that the organism of Sanarelli possesses a most marked specificity, equaling that of *bacillus cholerae suis*, of which they consider it a variety, advance the proposition, that it, when found in cases of yellow fever, is one of the secondary organisms, such as the colon and *poteus*, which invade the body in the 'last hours of life.'"

"We cannot assent to this proposition. The work of Sternberg, who says, 'In the series of cases studied by me, secondary infections were extremely rare,' and the work of Sanarelli and our own is opposed to the *barest possibility* that the *bacillus cholerae suis* could have been present in the intestinal contents and not have been discovered."

They emphasize that they did not underestimate the chance that gave Sanarelli two cases of blood infection, from whom pure cultures could be easily made, and that advances in technic had been made since Sternberg worked in that field.

To more fully fortify their position, they made the Pfeiffer test with two guinea pigs and found no specific effect upon the animal inoculated with hog cholera, when injected with yellow fever serum,

while the bacilli in the other animal were to a great extent fragmental and motionless. Both animals died, showing no anti-infectious properties of the serum anti-amaryll, but a distinct retardation. The necropsies showed a marked difference in the findings. They conclude:

"1. That the domestic pig is incapable of infection by the bacillus icteroides, when introduced through the intestinal or digestive tract.

"2. That the *B. icteroides* when fed to pigs will *not* produce any of the symptoms or intestinal lesions characteristic of hog cholera, as claimed by Reed and Carroll."

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SUPRARENAL EXTRACT IN THE TREATMENT OF ADDISON'S DISEASE. Dr. R. Alex. Bate (*Am. Prac. & News*, vol. 28, no. 39) reports the alleviation of Addison's disease by daily administration of extract of the suprarenal glands of sheep. One-half grain was given three times a day with such marked improvement that for more than a year the patient has been able to earn a living at the usual occupation. The asthenia, nausea, dizziness, faintness and pigmentation have almost entirely disappeared. On two occasions, when the extract could not be obtained for ten days, attacks of fainting with cold, clammy sweats, occurred. It is evident from this that should medication be discontinued the symptoms would return, since we have simply supplied artificially that which is normally secreted.

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DETECTION OF THE TRICHINA SPIRALIS.—L. Napoleon, Boston. (*Microscopic Bulletin*, August, 1899.)

In man the most favorable point of election is the outer head of the gastrocnemius, near the tendinous insertion, where it can be found on the twenty-first day. The minute piece of muscle can be easily obtained under cocain anesthesia and teased out in glycerin and water; it can then be seen under a two-thirds inch objective, with low illumination. When a permanent mount is desired a drop of Farrant's solution is placed on the specimen and a coverglass is moistened by the breath and allowed to fall gently on the medium. The slide should be put in a cool place for twenty-four hours, and can then be ringed by any cement. Specimens thus mounted can be preserved for three years.

## BOOKS AND PAMPHLETS RECEIVED.

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*Progressive Medicine.* Volume III. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 440 pages, 11 illustrations. Lea Brothers & Co., Philadelphia and New York.

*The International Textbook of Surgery.* By American and British Authors. Edited by J. Collins Warren, M.D., LL.D., Professor of Surgery in Harvard Medical School; Surgeon to the Massachusetts General Hospital; and A. Pearce Gould, M.S., F.R.C.S., Surgeon to Middlesex Hospital; Lecturer on Practical Surgery and Teacher of Operative Surgery, Middlesex Hospital Medical School; Member of the Court of Examiners of the Royal College of Surgeons, England. Volume I, General and Operative Surgery. With 458 illustrations in the text, and 9 full-page plates in colors. Philadelphia: W. B. Saunders. 1899.

*Report of Formaldehyd Disinfection in a Vacuum Chamber.* By P. A. Surg. E. K. Sprague, U. S. M. H. S. (Acting Director Hygienic Laboratory) Treasury Department, U. S. Marine Hospital Service. Washington: Government Printing Office. 1899.

*The Cause of Yellow Fever. Report of Commission of Medical Officers Detailed by Authority of the President to Investigate.* Treasury Department, U. S. Marine Hospital Service. Washington: Government Printing Office. 1899.

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*Involvement of the Eye and Ear in Cerebro-Spinal Meningitis.* By Wm. Cheatham, M.D., of Louisville, Ky. (Reprinted from *Philadelphia Medical Journal*, July 25, 1899.)

*Excision of the Right Superior Cervical Ganglion of the Sympathetic for Glaucoma, with Report of Case and Review of Literature of the Surgery of the Cervical Ganglia.* By James Moores Ball, M.D., and Willard Bartlett, A.M., M.D., St. Louis. (Reprinted from the *New York Medical Journal*, July 1, 1899.)

*Resection of the Cervical Sympathetic in Glaucoma.* By Professor Thomas Jonnesco, of Bucharest, Roumania. Translated from the *Wiener Klinische Wochenschrift* of May 4, 1899, by James Moores Ball, M.D. (Reprinted from *Interstate Medical Journal*, July, 1899.)

*The Failure of Antitoxin in the Treatment of Diphtheria.* By J. Edward Herman, M.D., Brooklyn, N. Y. (Reprinted from *Medical Record*, May 27, 1899.)

*Hydrochloric Acid—Simple Method of Administering.* By Chas. D. Aaron, M.D., Detroit, Mich. (Reprinted from *Journal American Medical Association*, July 24, 1899.)

*The Diagnostic Value of Abdominal Palpation in Diseases of the Intestines.* By Chas. D. Aaron, M.D., Detroit, Mich. (Reprinted from *Mathews' Quarterly Journal*, April, 1897.)

*Carcinoma of the Duodenum.* By Charles D. Aaron, M.D., of Detroit, Mich. (Reprinted from *Philadelphia Medical Journal*, 1899).

*Albuminuria and Its Relation to Diseases of the Eye.* By Alex. W. Stirling, M.D., Atlanta, Ga. (Reprinted from *Ophthalmic Record*, September, 1899.)

*Sarcoma of the Orbit.* By Alex. W. Stirling, M.D., Atlanta, Ga. (Reprinted from *Ophthalmic Record*, July, 1898.)

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## NEWS AND NOTES.

THE New Orleans Polyclinic will open on November 20, 1899.

DR. B. N. WARD, of Helena, Ark., has moved to Little Rock.

DR. R. S. STANLEY has been confined to bed with continued fever.

DR. FRANK A. JONES has removed his residence to 146 Vance street.

DR. F. D. SMYTHE left for Chicago October 14 to spend two or three weeks.

DR. T. J. CROFFORD has been elected Vice-President of the American Obstetrical and Gynecological Association.

DR. J. H. REILLY and Dr. E. C. Ellett have completed and moved into their new residences on Bellevue avenue.

DR. B. F. TURNER has been absent from the city recuperating since September 20 and expects to return November 1.

THE LANCET extends its sympathy to Dr. S. J. Cooper in the loss of his mother, who died in Tuscumbia, Ala., on October 15.

THE Tri-State Medical Society of Alabama, Georgia and Tennessee held its annual meeting in Chattanooga on Oct. 24, 25 and 26.

DRS. ELIZABETH KANE, Kennedy Jones, J. L. Minor, W. B. Rogers and R. B. Maury have returned from their summer vacations.



DR. WM. T. BRAUN, formerly House Surgeon at St. Joseph's Hospital, has returned from a post-graduate course in New York and opened an office.

DR. SMITH BUFORD, of Raleigh, Tenn., died on October 20th. Dr. Buford was a member of the Tri-State Medical Society and a Confederate Veteran.

THE Memphis Hospital Medical College will open its annual session on November 1st. The Faculty this year contains two new Professors and an augmented corps of Demonstrators and Instructors.

ON November 1st Drs. Hugh Boyd and H. S. Wolff will complete their terms as Resident Physicians at the City Hospital, their places being taken by Drs. Fountain, of Texas, and Minor, of Mississippi.

Two suits for \$20,000 each have been filed against the Van Vleet-Mansfield Drug Co. of this city, alleging that the deaths of two persons were caused by their taking internally some wood alcohol sold by the defendants under the label of "Cologne Spirits."

DR. JNO. G. CLARK, formerly Chief Resident Gynecologist at Johns Hopkins Hospital, has been elected Professor of Gynecology in the University of Pennsylvania, to succeed Dr. Chas. B. Penrose, resigned. Dr. Clark graduated from the University in 1891, and was a student contemporary with three of the LANCET's editors. His many valuable contributions to gynecologic literature have made him well known, and his appointment is a merited reward for hard and conscientious work.

ON November 1st services in the staffs of St. Joseph's and the City Hospital will be changed, the following going on duty:

CITY HOSPITAL.

Physicians—Drs. Henning and Reilly.

Surgeons—Drs. Maury and Rogers.

Gynecologist—Dr. Rice.

Obstetrician—Dr. Erskine.

Oculist and Aurist—Dr. Sinclair.

The services of Pathologist, Laryngologist and Neurologist do not change.

ST. JOSEPH'S.

Physicians—Drs. Rice and Turner.

Surgeon—Dr. Rogers.

Oculist and Aurist—Dr. Minor.

Gynecologist—Dr. Taylor.

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placed in us by the medical profession and public, and we assure both that we guard it zealously. Our every effort is to deserve more and more the continued good faith and patronage of both. Our past success is due entirely to our painstaking and careful service, combined with the use of the BEST goods obtainable. On this basis we shall continue to do business.

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**BOWEL COMPLAINTS OF INFANTS, CHILDREN AND ADULTS.**—The following prescription has been used for some time by a prominent Philadelphia physician, who states that he considers it almost a specific in summer complaints: Liquor bismuth, Glyco-Thymoline (Kress), of each two ounces, mix. Dose: a teaspoonful as often as may be required. Glyco-Thymoline (Kress) may be combined with bismuth, tr. opii, camph. tr. opii, mistura creta, syr. rhei. arom., etc.

Administered internally Glyco-Thymoline (Kress) acts as a carminative, antiseptic, alterative, stimulant, antacid, and meets many of the requirements of the physician during the summer months. Glyco-Thymoline (Kress), diluted one ounce to the quart of water, used as a sponge bath, stimulates the skin secretions. An enema of Glyco-Thymoline (Kress), one ounce to the pint, will be found most valuable.

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**THE NEW ORLEANS POLYCLINIC.**—*Thirteenth Annual Session* opens November 20, 1899—closes May 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, Louisiana.

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CHOLERA INFANTUM.—David Coleman, M.D., Tottenville, S. I., reports the following case: On July 1st last was called to attend a baby suffering from cholera infantum in advanced stage. I had little hope of saving the child; at once put it on teaspoonful doses of Glyco-Thymoline (Kress). It stopped the vomiting and corrected the bowels—a rapid recovery resulted. Sept. 17, 1898.

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For other work I will charge the following fees: Urinalysis, chemical and microscopical, \$2.00; including staining for tubercle bacilli, \$3.50. Quantitative for sugar, \$2.50. This covers the work necessary to make a conscientious diagnosis, and for *life insurance*. Pus for gonococci and other microorganisms, \$2.00. Feces for parasites, eggs, etc., \$5.00. Blood for typhoid and yellow fever reaction, for malaria organisms, diphtheria exudate and sputum for tubercle bacilli, \$2.00. Other examinations for poisons, etc., according to labor and material consumed.

FELIX PAQUIN, Ph. B.,

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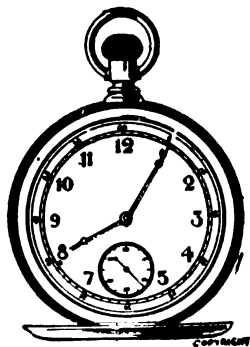
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*And Where Nature fails to make Good Blood,*

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Aye! Get Good Blood—but How? Not by the Alimentary Process. It has already failed to do its work (else the patient would not be sick); and in acute disease must not even be allowed to do the work it can. Stimulate as you will, the whole sum of the patient's alimentary power when fully forced into play, is unable to keep up the nourishing and supporting contents of the blood. There is absolutely but one thing to do; and, thank God, that can be done, usually with success, as ten-thousand-fold experience has proved. That one thing is this: where Nature fails to PRODUCE good and sufficient Blood, WE CAN INTRODUCE IT from the arteries of the sturdy bullock, by the medium of BOVININE.

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**TRY it in *Anæmia***, measuring the increase of red cells and hæmoglobin in the blood as you proceed, together with the improving strength and functions of your patient.

**Try it in *Consumption***, with the same tests from week to week.

**Try it in *Dyspepsia* or Malnutrition** of young or old, and watch the recuperation of the paralysed alimentary powers.

**Try it in *Intestinal* or gastric irritation, inflammation, or ulceration**, that inhibits food itself, and witness the nourishing, supporting and healing work done entirely by absorption, without the slightest functional labor or irritation; even in the most delicate and critical conditions, such as Typhoid Fever and other dangerous gastro-intestinal diseases, Cholera Infantum, Marasmus, Diarrhoea, Dysentery, etc.

**Try it *per rectum***, when the stomach is entirely unavailable or inadequate.

**Try it by *subcutaneous* injection**, when collapse calls for instantaneous blood supply—so much better than blood-*dilution*!

**Try it on *Chronic Ulceration***, in connection with your antiseptic and stimulating treatment (which affords no nourishment) and prove the certainty and power of topical blood nutrition, abolishing pus, stench, and PAIN, and healing with magical rapidity and *finality*.

**Try it in *Chronic Catarrhal Diseases***; spraying it on the diseased surfaces, with immediate addition of peroxide of hydrogen; wash off instantly the decomposed exudation, scabs and dead tissue with antiseptic solution (Thiersch's); and then see how the mucous membrane stripped open and clean, will absorb nutrition, vitality and health from intermediate applications of pure bovinine.

**Try it on the *Diphtheritic Membrane* itself**, by the same process; so keeping the parts clean and unobstructed, washing away the poison, and meanwhile sustaining the strength independently of the impaired alimentary process and of exhaustive stimulants.

**Try it on *anything***, except plethora or unreduced inflammation; but first take time to regulate the secretions and functions.

**Try it on the *patient*** tentatively at first, to see how much and how often, and in what medium, it will prove most acceptable—in water, milk, coffee, wine, grape, lemon or lime juice, broth, etc. A few cases may even have to begin by drops in crushed ice.

A New Hand-book of Hæmatherapy for 1898, epitomizing the clinical experience of the previous three or four years, from the extensive reports of Hospital and private practice. To be obtained of  
**THE BOVININE COMPANY, 75 W. Houston Street, New York.**

# THE MEMPHIS LANCET.

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## ORIGINAL ARTICLES.

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### THE VALUE OF TREATMENT IN PNEUMONIA.\*

BY S. W. PURIFOY, M.D.

LOWNDESBORO, ALA.

In the spring of '95 I tabulated for Dr. J. B. Marvin a resumé of the cases of pneumonia received into the Louisville City Hospital from October 1, '94, to June 1, '95. This number consisted of 120 cases, having occurred in the consecutive services of Drs. Hendon, Solomon, Lapsely, and myself, through whose courtesies I make this report. The average mortality in this series was 67 per cent.; the highest, 95 per cent., was in December; the lowest, 10 per cent., was in April.

The distinguished reader, Dr. Marvin, said, before the Louisville Academy of Medicine, that we would probably be in error if we considered the death rate in every series of cases of pneumonia to be only 20 per cent., the authorized teaching; that the actual mortality would vary between 5 and 90 per cent., depending on the natural circumstances under which the disease was thriving, and the environments in which the patients lived.

The complications and the variations of the clinical symptoms in our series were as is usually found in such a number of cases. On the post-mortem table, however, whether a single lobe of a lung,

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\* Read before Tri-State Medical Society of Alabama, Georgia and Tennessee, Oct. '99



an entire lung, or whether both lungs had been involved, one constant and unvarying circumstance was always found—gray hepatization was a common feature in all cases that died. Dr. Cashin, the pathologist to the hospital, observed the clinical manifestations of these patients during life, especially during the last days of life. He examined this condition of gray hepatization found at death, both macroscopically and microscopically, making at the same time bacteriologic investigations, as to the nature of microorganisms present, both in the tissue and in the exudate. He made, on the strength of his observations, the inference that the gray hepatization as found at autopsy and commonly described by authors as the lung tissue in a state of resolution, was very probably a condition of purulent infiltration or of purulent saturation. It was left for all of us to think how a lung so filled with pus and so infected with pus-producing organisms could be in a process of resolution; or, in fact, if a lung became diseased in this manner could it be possible for it to resume its healthy state; or, again, is it not true that a healthy lung once involved in a pneumonic process had escaped the stage of hepatization altogether? These were wild conjectures which we could neither establish nor disprove. Notwithstanding, it served the purpose to impress us with an idea that a healthy, robust man did not succumb to a purely pneumonic process, but died from purulent septicemia or pyemia as a main or as a contributing cause.

These statistics do not give an accurate detail of the true mortality or of the virulence of the infection, by reason of the facts under which they were formulated. Those of us who have served for any length of time as a resident in an institution of charity know that the statistics therein made always show a higher mortality than in private work, which makes them faulty and subject to strong modifications. This is due to two facts: (1) many who become sick of a disease recover in their homes with little or no treatment, whereas many who apply for treatment in the institution are already in a moribund condition. So that the records of the hospital have been deprived of that number recovering in their homes without treatment, which number, by fact, belongs to the same series as that number received into the hospital; (2) much of charity claims are given by the resident physicians of the city who, when it becomes plain that a patient needs a trained nurse, very rightly express this patient to an almshouse. These cases nearly

always die, mutilating the reports. In reviewing the details of the cases in question, we find that many of them died within the period of two or three days, all of whom will certainly be included within these two objections. By taking into consideration these facts, debarring at the same time those cases that may come under the objections, we do not think that more than 80 to the 100 would have formed the ratio.

In the treatment of these cases we had the opportunity and the privilege of weighing the intrinsic value of many of the methods of treatment in vogue. Following the ideas and precedents of those in authority, both as to pathology and as to treatment, we stimulated the right ventricle of the heart with the preparations of digitalis, believing that we could thereby drive the current of blood past an impediment in the lungs, which impediment caused a strangulation of blood and produced either a cardiac syncope or a cardiac exhaustion. We stimulated with the salts of strychnin with the hope in view of dispelling a cardiac neurasthenia—an excellent opportunity to prove, if there be, the influence of heart stimulants in pneumonia. This procedure merely served the doubtful purpose of making an organ, the heart, go faster under a load which it could neither carry nor lay aside; and finally, when goaded into insensibility, it succumbed to a too early dissolution.

When this made the treatment in by far the greater number of cases, we were forced to infer that heart stimulants were of no appreciable advantage in the treatment of pneumonia, but, on the contrary, may do much harm. When the heart is carrying its imposed load to an advantage, to stimulate it to a greater energy would be fallacious; and when impending dissolution is evident, we need something of more value and strength than strychnin or digitalis. These merely display and exhaust latent energy that may otherwise be used to a profit. We have seen this well proven in an instance in which, notwithstanding a wiry pulse of 160 with apparent collapse, the patient with pneumonia was given 20 gtts. of the tr. aconiti. every three hours to reduce the rapidity of the pulse. In spite of this cardiac depressant the patient recovered, establishing the probability that the latent, inherent power of the heart is held at such equilibrium that, unless we poison or destroy this power, we have neither the means to increase nor the ability to diminish. To increase the speed or the force of a pulley drawn by a limited amount

of steam power without at the same time generating more steam, leads to an early exhaustion of power. This well-known law of mechanics may be aptly applied to the principles that govern the engine of life. The nerve force and inherent power of the heart are limited; the energy expended is just so much as the exigency demands at any time; when the heart flags in an exigency it illustrates the conservatism in the economics of nature; and when we make the assumption that more energy is needed than is being supplied in the heart's beat, we say that nature is selfish and works to her own destruction.

When we had been discouraged with the use of the heroic treatment, we thought that less treatment, and not so much interference on our part, would be better, on the hypothesis that pneumonia was an essential infectious fever, whose duration was limited to the life of a microörganism; that the destruction of the microörganism was effected by certain changes which occurred in the blood of the individual, either as a result of the presence of the microbe or its secretion in the blood, or as a chemicotoxin inherent to the blood in the presence of such organisms. To this end, and for the comfort of the patients, we administered  $\frac{1}{4}$  gr. of morphin according to the nature of the case. Among this number there was a mortality of only 15 per cent. In considering this decrease in percentage of those who died, we must not view it from the point of treatment. It certainly could not be connected with any form of treatment, but, apart from this, was due to material causes—attenuation of the specific organism, protection from a secondary infection of the exudate, greater constitutional strength of the individual, etc.

Now what do we learn from our observations in regard to the value of the treatment employed, when we have considered the finding at the autopsies and the high mortality? If, as we before have said, we take pneumonia to be a specific infectious fever, the treatment used was useless; if death in pneumonia is the outcome of a pyosepticemia, the treatment was hopeless. As a plea for better treatment the question naturally arises, what is a more rational treatment? Which question involves us in many intricacies of thought.

The science of medicine is constructed on both the laws of induction and the laws of deduction. We have circumstance, cause, and phenomenon. We apply a specific cause to an unknown cir-

cumstance and vary a constant phenomenon; we ascertain from the nature of the varied phenomenon the nature of the unknown circumstance. We have in this manner of applying specific remedies discovered specific causes. If, in like manner, we have a known cause and a constant phenomenon which is made to vary by effects of unknown remedies, we make known specific remedies for specific causes. But the error into which investigations in the sciences naturally go, is the fallacy, *post hoc ergo propter hoc*. This is far more likely to control an influence in the medical science than in any other; since, in the anatomy of man, the functions of the several organs are so combined that a single circumstance may be followed by several phenomena, which increases the difficulty of ascertaining the particular phenomenon of a particular circumstance.

If we apply this method of analysis for discovery of a more rational treatment in pneumonia, we may better approach our question; because, in pneumonia, we have as the positive factors the strength of nature and the strength of medicine; as a negative factor we have the pneumococcus. If the positive elements be stronger than the negative element, we have a cure; if the negative element is greater than the positive elements, death results. But we know that with only one positive circumstance we may effect a cure—the patient recovers with the strength of nature alone—may recover without treatment. If then it is possible for one to die with the strength of nature and the power of medication both at his service, and if at the same instance it is possible for him to recover merely by the strength of nature alone, of what should the medication consist in order that he may escape death at all times? The solution of this seems to be possible. We must find out the base of this natural immunity in order that we may supply the natural deficiency with a like reproduction. Pane and de Renzi are experimenting in this cause and have received the approbation of the medical profession in their efforts to give to the people an antitoxin serum. This idea was given form some years ago by Dr. Cunningham, when he thought to give to the blood an antitoxin element by a hematoclyster of normal salt solution. Among the number of cases under operation there was one treated with subcutaneous injections of oxgall, suggested by an apparent mitigation of the pneumonic process in one severely jaundiced. This patient recovered, but as to the changes produced by the oxgall we cannot say.

It may be some time before the serum treatment of pneumonia becomes the established treatment with the medical world, yet it stands to our thinking that it is the only treatment proposed so far with a rational basis. It will have to push away many impediments, as was the fate of Roux's serum, because pneumonia, as diphtheria, may be a protean disease which may destroy life of its own power, or which may prepare the soil for the growth of other microörganisms whose power is even more formidable.

There is a custom of precedence in the judicial world, based on the doctrine of the rights of the individual, that all decisions and all decrees must be made on the opinion of learned judiciaries who have long since passed away. So that an error made three centuries ago must stand as a right today. This, they say, must be so, or else the entire legal fabric would be destroyed when altered. The result of this rule is that the science of law has virtually remained the same for many centuries, and those who have espoused the science have given their efforts not to the improvement of the law for the happiness of the people, but to the finding out its ancestral meaning, or to the discriminating between its spirit and its letter, that the people may not forsake the law. The fathers of the medical science have foregone this narrow idea and have bequeathed to their successors the text *semper cognoscente* as the best legacy.

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## ABSCESS OF THE UTERINE WALL.

BY W. W. TAYLOR, M.D.

MEMPHIS.

Gynecologist to St. Joseph's and the Memphis City Hospital.

Mrs. C., 21 years of age, primipara; was confined September 8th. The labor was difficult, requiring a forceps operation. She thought that she was making a fair recovery, and at the end of ten days was able to leave her bed. She thinks that during this time she had no fever, though the thermometer was not used. On about the nineteenth day after her confinement she was taken sick with pain in the right iliac fossa and had high fever.

On October 3rd she was admitted to the hospital, with a temperature of 104°F., pulse 130, and very anemic. During the three days she was in the hospital before the operation her temperature ranged from 102° to 104°, and pulse from 120 to 130. The cervix was lacerated, and in the right ovarian region a firm mass could be felt.

Operation October 6th—Celiotomy. An abscess was discovered in the uterine wall immediately below the right cornu, and communicating with a small abscess cavity of the broad ligament. Other parts of the uterus were soft and boggy, but not involved

in the inflammatory process. The appendages were normal. After shutting off the peritoneal cavity well with gauze packing, the abscess was incised and about an ounce and a half of pus was evacuated. The abscess cavity was mopped out with peroxid of hydrogen and packed with iodoform gauze. Other gauze was also introduced into the pelvis for drainage and the abdomen closed. The patient had a very easy, uneventful recovery.

In the case just reported the patient is probably mistaken in the statement that she was well for awhile after her confinement. It is likely that she had a septic endometritis all the time, which gave no palpable symptoms until the formation of the abscess and its invasion of the broad ligament. The case illustrates a fact that has been often noted before, that, as a rule, the infection in puerperal sepsis travels by way of the lymphatics and blood vessels and not through the tubes and ovaries. The operation was done with the patient in the Trendelenberg position, and the tube and ovary running over the top of the infiltrated broad ligament were seen to be perfectly healthy and without a trace of adhesion or inflammation of any kind. As uterine wall abscesses are often multiple, complete hysterectomy was considered, but the patient was in a too feeble condition to stand a more prolonged operation.

In regard to the adaptability of vaginal incision to the case here reported, it may be stated that it required a greater diagnostic acumen than is generally possessed to determine the exact pathologic lesion or the location of the pus until the abdomen had been opened. The purulent infiltration did not invade the whole of the broad ligament, but only the upper portion. The vaginal cul-de-sac was not thickened and indurated and to the examining finger there was no sensation of what has been called pasteboard vagina. The indurated mass felt to be distant from the vagina. Again, with pus near the uterine cornu and with an involvement of only a limited portion of the upper part of the broad ligament, it would have been difficult to reach from the vagina without opening the peritoneal cavity.

Randolph Building.

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**ADDISON'S DISEASE IN A YOUNG GIRL.**—M. Haushalter (*Gazette Hebdomadaire de Medicine et de Chirurgie*, Sept. 14) recently exhibited to the Medical Society of Nancy a young girl, 10 years of age, affected with Addison's disease. The affection was of about two months' standing, and was marked by lassitude, melancholy, and an abnormal pigmentation of the face, neck and back.—*N. Y. Med. Jour.*, Nov. 11, '99.

## LAW AND MEDICINE. SIMILARITIES AND CONTRASTS.\*

BY JOHN H. CANTRELL, ESQ.  
Of the Chattanooga Bar.

From time whereof the memory of man runneth not to the contrary, the two great professions of law and medicine have stood in close touch, and advanced as it were along the highways of the world's progress, side by side.

Each has been in the forefront of the forces which have led in the battle for better conditions for humanity. The one making for a peaceable and orderly state of society and seeking to protect the citizen in "life, liberty, and the pursuit of happiness;" the other making for health, comfort, longer life and greater strength of mind and body, and contriving to, in a measure, ward off and ameliorate the "thousand natural shocks that flesh is heir to."

At every step, each in its peculiar field has combined conservatism with progressiveness—holding fast to that which is good, profiting by the light of experience and the facts of nature—neither rejecting new truths nor casting aside old truths because of the discovery of those which are new, but seeking to assimilate, harmonize and utilize all truth in the perfection and completion of their respective sciences.

In saying these things, however, I of course mean to apply them to these professions only as represented by their true and worthy members. Verily the people have endured much at the hands of counterfeit lawyers, and suffered many things of many schools of pseudo physicians, magnetic healers and hypnotic suggesters, who, ignorant of every principle of the science of medicine, discover or imagine they discover some fragment of medical truth, and straightway rush naked into the streets and into the yellow journals crying: "Eureka! Eureka! Eureka! Ho, ye sick and afflicted of every tribe and nation, send hither your gold and silver, and the moment it reaches us you shall be made whole!"

How different from the quack and the shyster is the real phy-

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\* Read before Tri-State Medical Society of Tenn., Ala. & Ga., Oct. 24, 1899.

sician or the real lawyer. Each believes in the ethics of his profession, and has respect for its dignity and honor. Each hates the methods of the charlatan and mountebank, and loves that modest truth and unpretentious quiet which is essentially characteristic of the real and accomplished student of any great science. Each realizes that his relation to his patient or to his client, as the case may be, is one of peculiar trust and confidence, and that, in the very nature of things, the initiative toward the establishment of that relation must come from the patient or the client, who must so often trust his reputation, his fortune, and even his very life, to the care and keeping of his legal or medical adviser.

Alike in sympathies, in conservatism, in adherence to professional ethics, in characteristics of citizenship and in their relations to those whom they serve, the kinship between the professions of law and medicine is still further emphasized by the similarity in the character and instincts of those who unworthily pretend thereto.

The shyster and the quack are birds of a feather. They each belong to the genus fakir and the fleecer species. They are one in motive and method. They are the thieves by the wayside among whom many of the ignorant and unwary do fall. But they can no more be charged against the honorable professions with whose garments they seek to clothe themselves, than can those hypocrites in religion who "steal the livery of heaven to serve the devil in" be charged against the church.

The ass is *more* an ass, the lion *none the less* a lion, because the ass in lion's skin parades, and seeks in vain his master to deceive.

Again. The members of the two great professions under consideration own property together. They are tenants in common of an important field which is being much broadened and more assiduously cultivated during these latter years. I refer to the field of forensic, legal or State medicine, more commonly known as medical jurisprudence—that science which teaches the application of every branch of medical knowledge to the purposes of the law—"which applies the principles and practice of the different branches of medicine to the elucidation of doubtful questions in courts of justice."

Here, too, some striking similarities between lawyers and doctors may be noted. In many, perhaps in most cases, they materially aid the courts in getting at the truth. But, unfortunately; this is not always so. Sometimes the doubtful questions, instead of being



elucidated, are made more doubtful still, and what was at first uncertain becomes confusion worse confounded after the medical experts have had their say. Of course, this is mainly the fault of the lawyers. In their eagerness to win, they too often succeed in infusing a partisan spirit into the medical men. Then, as a result, the doctors disagree in open court just as the lawyers do, both professions are discredited, justice is hindered, and the court and jury are left to guess at the truth as best they can.

I have seen cases in court where the fight between the opposing lawyers and experts might be justly likened to a game of baseball or football, the lawyers standing as the captains on either side, the experts representing the opposing teams, and playing for dear life in favor of the respective litigants by whom they were called to testify—all in the pay of their respective sides, the experts being practically as partisan as the attorneys. A beautiful and striking illustration of the value of this kind of biased testimony is exhibited in the case of *Doolin v. Omnibus Cable Company*, recently before the Supreme Court of California. It was an action for damages for personal injuries to Mrs. Doolin, alleged to have been brought about by the derailment of a car on which she was riding as a passenger. Six physicians made a special examination of the plaintiff, Mrs. Doolin, some time before the trial took place. Three of them appeared as expert witnesses for the plaintiff and three as witnesses for the defendant. They all agreed that, at the time of the examination, Mrs. Doolin had a tumor, either ovarian or uterine, about the size of a cocoanut. But they agreed no further. Plaintiff's three experts said in open court that they were satisfied the tumor was the result of the cable car accident. Defendant's three experts insisted that the accident did not produce the tumor, but that the tumor was the original, sole and producing cause of all the ailments of which the woman complained.

The family physician testified that the tumor had steadily increased in size between the date of the examination by the six experts and the date of the trial. With this equal balance of expert evidence, what could the jury do but gallantly resolve the doubt in favor of the woman? However, about ten days after the trial and verdict, the truth became as clear as the sun at noonday. Mrs. Doolin gave birth to a full-term child, and it was unanimously agreed that she had never had a tumor.

Fortunately, it was not too late after "the truth was made manifest" for a new trial, and the Supreme Court aforesaid very heartily approved of the action of the court below in granting the same.

The expert medical witness should be as impartial as the judge before whom he testifies. The paid partisan expert is coming to be a nuisance and a bane. Instead of aiding the court in applying the principles of medicine to the purposes of the law, he becomes an obstruction to the purposes of the law, and an obstacle to the administration of justice. The sooner his banishment from the courts is brought about, the better.

As to how this can be done, whether by the appointment of honest and reputable physicians as State experts paid in all cases from the public treasury, or by some other method, is a question which might well be considered in the further discussion of the evening. Doctors and lawyers alike are vitally interested in the proper solution of the problem.

On the subject of contrasts I shall say but little. However, it must be admitted that we of the legal fraternity labor under certain grievous disadvantages as compared with our cousins of the medical craft.

In the first place, our period of starvation is much longer.

In the second place, no kindly sexton has ever as yet been discovered who could cover up our mistakes.

In the third place, when the lawyer loses a case he gets full credit for it. No man ever suspects that "the hand of an inscrutable and overruling Providence" had anything whatever to do with it.

In the fourth place, after the case is lost and stricken from the docket, and the client has cheerfully (?) paid the costs and charges, no man ever erects a monument to its memory, with an inscription declaring, in letters of brass and enduring marble, that the Almighty alone was responsible.

The truth is, the followers of *Æsculapius* have received much greater benefits from the "charities of religion" than have the disciples of Blackstone. But, "howsoever these things be," we enjoy a most blessed immunity from midnight calls in zero weather. We think, too, that we stand a better chance to get office than you doctors do. And, while the preachers may not help us out, as they do some we wot of, yet on this "bank and shoal of time" we'd rather bear the ills we have than fly to others that we think we see.

A PLEA  
FOR THE MORE THOROUGH STUDY OF  
MATERIA MEDICA.\*

BY E. A. NEELY, M.D.

MEMPHIS.

Because, I suppose, he knew I had formerly been in the drug business, your Secretary has asked me to write this evening a paper making a plea for a more thorough study of materia medica. The mere fact of his asking me to speak on this subject presupposes that there exists in his mind a belief that the study of this most important branch of medicine has been, and is now being, very much neglected. Those of us who have watched the trend of events in medicine during the past fifteen years cannot but feel that he is right; cannot but feel that something should be done to keep the next generation of medical men from being routinists and prescribers of readymade formulas.

Presuming that our premises are right, presuming that there is really taking place a retrogression in the profession so far as concerns materia medica, we most naturally begin to speculate as to what causes are in operation bringing about this deplorable result; for it is deplorable to think that when a crisis comes to our sons, who may follow us in the practice, they may be caught like the biblical maiden without oil in their lamps. There must of necessity be some cause, or set of causes, which are responsible for this listlessness, this inertia in the study of materia medica. In thinking over the subject there has occurred to my mind three, which appear to me to be worthy of suggestion and comment. I submit them to you without pedantry for your criticism and whatever action seems to you plausible and best.

It would be difficult to discuss this subject intelligently, or to get near the right path to a correct conclusion without taking into account the element of human dislike and aversion to labor, either with the mind or muscles. The man who piled together small mounds of stones on the seashore to commemorate passing events,

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\* Read before Memphis Medical Society, November 7, 1899.

was the normal man. He had few cares, and his wants were easily supplied. I have often heard it said that this man or that man loved to work. I have often heard men throw such bouquets at themselves, but I have never believed, and still do not believe, that any man loves to work for work's sake. When a man is physically and mentally well, there can be no doubt but that he will frequently experience great delight from labor, but there is behind it a concealed impelling force, centered in the mind. It most frequently is a love of wife and children and home, and a desire that they should have all the comforts obtainable, and that they should live in as good a house, wear as good clothes and take as good a position in the community as he can afford them. Love and pride are the wonderful stimulants which have kept man in a state of excitation and activity, and the sum of his exertions is called civilization. You have no doubt already guessed that I think that a normal indisposition to labor, a natural contentment to let others do the rooting, is one of the causes for the disreputable state of *materia medica* as we practice it now.

Another, I believe, is the very imperfect way in which this fundamental branch is taught in the majority of medical schools. Those of us who have had some service in drug stores know best, perhaps, how very true this is. I do not claim that this experience makes us much better than the average graduate, or that we always use it to the best advantage, but I do presume to say that this intimate association with the crude drugs and a practical knowledge of their different preparations gives the old drug clerk a confidence in and a mastery over his weapons which the didactic lecturer cannot impart. The usual manner of teaching *materia medica* in medical colleges is about like this: The professor enters and says: "Gentlemen, I desire to call your attention today to Senna, a specimen of which I show you." He then passes around a sealed bottle containing some senna leaves. The student takes it, looks a moment, passes it to the next man and the incident is closed to him. The professor then tells them that the leaves are gathered from a shrub which grows in certain localities, under certain conditions, are dried by exposure to the sun, that the preparations of it are an extract, a fluid extract, etc., the dose of each being given, and that when administered internally it has certain effects. When he gets through the students are generally asleep or sleepy. The performance has

not been entertaining. Any medical student had rather read the Old Testament than listen to lectures on materia medica. You ask me how this is to be corrected? I tell you that every medical student, in addition to acquiring a knowledge of the therapy of drugs, ought to be brought into direct and intimate contact with the drugs themselves. He ought to be taught how to make extracts, and tinctures, and powders, and pills, and ointments. You may answer that the medical student is already overburdened with branches, and laboratory courses, and quizzes and things, but I reply that the medical student is now taking a number of courses that might very advantageously be stricken from his card and a laboratory course in pharmacy be substituted. For instance, the professor of ophthalmology tells the student all about the eye, but advises him not to undertake the treatment of anything more serious than a simple conjunctivitis; the balance of his eye cases he should send, not to him, he does not say that, but to some oculist of repute. Personally, I feel at this distance from my college days that if I had been taught nothing more than the anatomy and physiology of the eye and how to relieve a catarrhal inflammation of it, I should have, from a practical standpoint, been just as well off. The city doctor *cannot* take the responsibility of an eye case, and the country doctor *should* not.

Those of you who have had the advantages of a training with the microscope, and who are now in general practice will, I think, bear me out that it is more of an accomplishment than a necessity. I know that we are polished and broadened by the study, but we get some one else to make our examinations, for the details incidental to microscopic work require more time than the general practitioner can spare. I will not go further along this line of thought than to say, that it does seem to me that the scheme of study for medical students could be revised and reset with advantage to him at several points.

I have mentioned two of the causes which have suggested themselves to my mind, but they are only pathognomonic; their existence has made the third possible and its development vigorous and phenomenal. The first cause of course is a matter entirely for individual regulation. The second can be corrected by public opinion. I mean, of course, professional public opinion. If the medical graduate were a better pharmacist he would not be such an easy

prey for the rapacious proprietary medicine man—the vendor of readymade prescriptions—the man who claims that the compound is prepared by him with special machinery, which has cost him thousands of dollars to perfect, or that his firm has spent vast sums in collecting the crude ingredients in the jungles of Africa or on the dizzy heights of the Andes.

I have been a medical student, and a teacher of medical students, and I know that the man who offers him a prescription is his friend. He sits on his bench above you and looks like he is asleep—but write a prescription on the blackboard and he is wide awake and alert in an instant, and every faculty is aroused as he copies it in his notebook. It is complimentary to the teacher that he should want to copy it, but it augurs no good for the student. As a grown-up doctor he is not very different from what he was as a student, and falls an easy and willing captive to the wiles of the readymade prescription man. If the doctor is willing to prescribe, there are plenty who are willing to make. If the doctor is willing to indorse them with public testimonials, there are plenty who are willing to wax fat on his good name, and we cannot blame them. They are not in business for their health, or the good of their country. It seems to me that the question is now, in language of the poker player, up to the doctor. His arsenal is being debauched and his enemies are all about. I will not venture to suggest a remedy, but one should be found.

There is another feature of this proprietary medicine business which has come to be quite a serious one to the busy city practitioner, and that is the time consumed from our office hour in listening to a recapitulation of the virtues of those marvellous preparations of all the different chemical and pharmacal companies by their drummer, who has “just called to call your attention to,” etc. If they multiply as rapidly in the future as they have in the past thirteen years, the time is not a great way off when the doctor will have to employ a clerk to receive them and their samples.

For the ubiquitous drummer, I have nothing but a kind word. He sees according to his light, he travels according to his pocket-book. He is always well dressed, and socially a very pleasant fellow to meet. He will give us a trunk full of samples if we want them, promise to send us anything else we ask for, and will get out if we put him out.

In a spirit of fairness, I feel that I cannot leave this subject without saying that it is entirely inconceivable that among so much that is bad there should be nothing that is good. Some of the remedies presented to us really are very excellent combinations, and some chemical products which come to us patented are beyond doubt scientific and good, but that is not reason enough for the doctor to lend himself as a medium for their introduction to the public, for that is the ultimate result, and the makers know this; it is what they are striving for, while working under the cover of ethics. The only hopeful feature of the situation which I can see is, that the possibility of making enormous fortunes out of the business, as others have already done, will stimulate investigation and research which may ultimately prove beneficial to materia medica. In the meantime the manufacturers are growing fat and the doctor is growing lean.

Masonic Temple.

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RATIONAL TREATMENT OF SYPHILIS.—A. H. Ward (*British Med. Jour.*, Oct. 21). The rational treatment of syphilis, according to Ward, is as follows: Mercury should be used alone in the primary and secondary stages in the absence of severe lesions, and treatment should be begun at the earliest moment. The drug should be given in a form easy to take and not irritating to the stomach, and should be pushed to the toleration point, as indicated by slight affection of the healthy gums. When this is reached it should be kept up at that point, but never increased or diminished. The course should continue for two years, that being the period of natural cure or real latency. Iodides should not be used in routine treatment in the primary and secondary stages, as by removing the toxins the phagocytes will be no longer attracted to the germ, and excapsulation and destruction will be hindered. Iodides, together with mercury, should be used in increasing doses in the gummata stage, and a mild mercurial course is advisable later. In intractable cases, with chronic blood poisoning and severe lesions, a large quantity of water taken daily aids the excretion of the toxins, and in the shape of Zittman's decoction is undoubtedly very effective. The main point in the treatment of syphilis, according to Ward, is to push the mercury to the toleration point and keep it there throughout the course.—*Jour. Amer. Med. Assn.*, Nov. 11, '99.

# THE MEMPHIS LANCET.

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## EDITORIALS.

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### THE TRI-STATE MEDICAL ASSOCIATION MEETING.

The sixteenth annual meeting of this society, held in Memphis November 14, 15 and 16, a full report of which appears in this number of the LANCET, was the largest in point of attendance in the history of the society. The Secretary informs us that about two hundred visiting physicians were at the meeting, an accurate estimate not being possible, as no register is kept. The exhibits were larger and more pretentious than ever before—an evidence of the importance of the gathering in the eyes of those who handle medical and surgical supplies. Of particular note was the presence of two distinguished visitors, Dr. Thomas Charles Martin, of Cleveland, and Dr. A. B. Cooke, of Nashville, both of whom contributed interesting papers. The program was full, and contrary to the rule, most of the contributors appeared, the result being that the program was not finished in the allotted time. There was the usual assortment of papers—a few good, a few bad, and many indifferent. Malarial hematuria bobbed up with its accustomed regularity, the discussion contributing nothing to our knowledge of the subject, and only demonstrating anew the difficulty of arriving at truth from clinical experience. On this head we note the preponderance of opinion is now opposed to the administration of



quinin in the treatment of this disease, and we presume that this view will ultimately count on its side practically all of the practitioners of this section, since the opposition to quinin appears to be based on a sound scientific, clinical and experimental basis, a support which the quinin treatment can hardly be said to have.

To criticise a condition without offering a remedy is iconoclastic and possibly reprehensible, but at the risk of being both, we are going to tell what look to us to be weak points in the program, and if we are sufficiently urged we may suggest the remedy. In the first place, as to papers. There is no good reason for writing a paper on a complete subject, e. g., typhoid fever, and boring the members and consuming time by a recital of symptoms, etc., of this or other common disorder carefully culled with more or less skill from textbooks accessible to every man present. If a new symptom has been observed, such as the edema mentioned by Dr. DeLoach in enterocolitis, it is of course highly profitable to call attention to it. If new anatomical facts are to be divulged, as was done by Drs. Martin and Cooke, then a complete statement of the same, with their pathologic bearing, the symptoms they may cause or should by all means be dealt with. Or a particular part of a subject, such as the complications of typhoid fever, is a fit theme. But in the majority of cases, whatever new the members of this society have to offer is in the way of treatment, and our opinion is that with treatment most of the papers should deal. Again, they should be short. Let the fountains of the writer's eloquence be poured forth on paper and put in type to be perused at leisure, but let him condense what he reads at the meeting and read only what is of importance. Fifteen minutes at the outside, and preferably ten, should be the time limit on the papers, and we feel that we would miss hearing many words, but few ideas. The same applies to discussions. Three minutes is more than enough to allow each member, and we hope that this, instead of five, will be decided on next year. We do not recall any discussion which could not have been more profitably stated in this time. This would have enabled the society to finish the program at this meeting. One other point is the avoidance of a multiplicity of papers on one topic. An executive or program committee should exist, with power to select which paper or papers on a given topic shall be read—the other contributors being put down on the program to discuss it. The

liberty of the writer should be abbreviated in favor of the liberty and profit of those who listen.

We will conclude with two bouquets. The first and largest is to the officers—especially to the Secretary, who should have one all to himself, since to his energy is due the full program and the satisfactory arrangements. The second is to our humble self. Last year the LANCET published the first and only full report of the meeting ever presented—not excepting one or two volumes of transactions, from which the discussions were usually omitted. Stimulated by our example, the society's official organ had a reporter at all of the sessions, and will doubtless furnish a report of the proceedings in its December number. The shortcomings of the one will be supplied by the other, and between the two the members will secure a complete report of all the papers and discussions.

Any notice of the meeting would be incomplete without a notice of Dr. Barton's excellent splint, one of the few original devices ever presented to the society.

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#### AN ADDITION TO OUR STAFF.

Beginning with the next issue the LANCET staff will be augmented by the addition of Dr. L. L. Meyer, who will assume the duties of editorial secretary. The present staff will continue as before in the discharge of their various duties, but the increase of editorial and other work has necessitated additional help. Dr. Meyer is a graduate of Bellevue, and a man whose professional attainments are such as to materially aid the LANCET in a continuation of its progress toward the high journalistic ideal which we were not mistaken in thinking would be appreciated by our many readers.

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WEST TENNESSEE MEDICAL AND SURGICAL ASSOCIATION.—This society will meet at Milan on Thursday and Friday, December 14 and 15. Dr. I. A. McSwain, of Paris, is the Secretary, to whom titles of papers should be sent.

## REPORTS OF SOCIETIES.

### PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

*Regular Meeting, November 7, 1899.*

The President, Dr. B. F. Turner, in the chair.

The meeting was a joint meeting of pharmacists and physicians for the purpose of discussing matters of common interest. Present were, Drs. Turner, Alfred Moore, Ellett, E. D. Mitchell, Erskine, Barton, Farrington, Gardner, Rudisill, Raymond, F. A. Jones, Neely, Reilly, Smythe, Heber Jones, R. H. Mitchell, Kane, Buford, Andrews, Harkness, Griswold, Black, Goltman, Lane, Moore Moore, Crofford, Braun, Pincus, Webb, Krauss, Kennedy Jones, Taylor, Meyer, and H. B. Sanford.

Pharmacists—Messrs. Ward, Treherne, Hamner, Ballard, Besthoff, Crego, Mayer, Lehman, Geiselman, Renkert, Cole, Gillespie, and others.

Visitors—Dr. Fountain, Messrs. McCown, Kahn and Paquin.

*Dr. E. A. Neely* read a paper on *A Plea for a More Thorough Study of Materia Medica*. (See page 282.)

*Mr. F. W. Ward* read a paper on *Some Pharmaceutic Abuses*. He considered especially counter-prescribing and substitution, condemning both. In regard to the former, there was some difference of opinion as to what constituted it. The dispensing of a headache powder, laxative, throat tablet, etc., on request, was not the same as an attempt to diagnose and treat a case. Substitution permits of no excuse. The law requires the registration of the sale of poison, with date, amount, name and address of buyer. (This paper will be published in full in the LANCET.)

*Mr. J. C. Treherne* read an able paper on *Fraternal Relations*. These can be maintained on the part of the pharmacist by his adhering strictly to the practice of pharmacy. Originally one, medicine and pharmacy soon separated, and in subsequent progress medicine has far outstripped her erstwhile companion, handicapped as she is by the inroads of patent and proprietary medicines, the development of the side line features of drug stores, and the presence of unqualified men in the profession. He condemned all forms of counter-prescribing, substitution, and the presence of soda founts, cigar stands, etc., in pharmacies. They should be conducted

by competent pharmacists, and solely for the dispensing of drugs and medicinal and surgical supplies.

*Dr. Wm. Krauss* thinks that the prescription of the proprietary medicines by physicians has made such inroads on the druggists' income as to compel him to take up "side lines." Another fault of physicians is their adherence to the old forms of weights and measures. The U. S. P. adopted the metric system twenty years ago, and the government services have used it for ten years.

*Dr. Heber Jones* thinks the essayists are too easy on the doctors. By prescribing proprietary remedies they compel the druggist to procure them, and the bulk of them remains dead stock. We should prescribe officinal preparations more.

*Dr. F. D. Smythe* blames physicians for the prescription of proprietary articles, and censures pharmacists for their lax observance of the poison law.

*Dr. W. C. Griswold* said that physicians often try to tell a patient the probable cost of a prescription, which they should not do unless they are posted as to the market price of drugs. He found pharmacy a most exacting profession. It requires sobriety, education, honesty, diplomacy, and many other virtues.

*Dr. E. C. Ellett* said that druggists did not hesitate to put up a physician's favorite prescription and dispense it as Dr. So and So's tonic, eye wash, etc. This has happened with two of his prescriptions, and is certainly an injustice to the physician. He would like to know to what extent the doctors would support a pharmacist who would confine himself strictly to the practice of legitimate pharmacy.

*Dr. Kennedy Jones* condemned the practice of refilling prescriptions, and cited instances in which certain prescriptions were refilled wholesale and the sales assisted by the use of the physician's name. He thought the physicians were primarily to blame for these abuses, since the prescription of officinal preparations only would permit the druggist to make a decent living without these practices, and at the same time be no more of an expense to the patient.

*Mr. Sidney Besthoff* plead guilty to selling soda water, cigars and candy, and said he was compelled to do it by reason of the inroads of proprietary medicines on legitimate pharmacy. Often when a druggist advises a person to take a physician's instead of his advice, he will go to another drug store and get what he wants.

*Dr. J. H. Reilly* thinks the patronage extended by physicians to proprietary articles is the root of the evil. He blames medical journals for aiding in increasing their sales by publishing their advertisements.

*Mr. Crego* asked the difference between a proprietary and a patent medicine.

*Dr. Ellett* said that medical journals were supported in two ways, either they were published by a publishing house to advertise their books (medical) or were supported by the advertisements, which are largely of proprietary articles. In but few instances does the subscription price pay for the publishing of a journal. A patent medicine is a secret medicine, and usually is advertised to the laity direct; a proprietary medicine is of known formula, but is distinguished by a trade (copy-righted) name.

*Dr. M. Goltman* reminded *Dr. Ellett* of a case of nephritis with retinitis which they saw together, which had been treated by a druggist for four months. He would surely favor anyone who would practice legitimate pharmacy.

*Dr. Krauss* does not think the refilling of prescriptions is much abused, nor can it be prevented.

*Dr. G. G. Buford* said that recent decisions hold that the prescription is the property of the patient, and cannot be kept from him if he wants it to take elsewhere for subsequent filling. Druggists should not countenance refilling, however.

*Mr. Besthoff* said that the prescription blank might contain the words, "Do not refill."

*Dr. Neely* said that it was an imposition for doctors to accept and use prescription blanks paid for by druggists, and they should stop using proprietary remedies.

*Mr. Treherne* said that the druggist was paid not only for the medicine but, like the doctor, for his skill and knowledge.

*Dr. Neely* presented the following resolution:

*Resolved*, That it is the sense of the Memphis Medical Society that the prescription of proprietary medicines by physicians is to be condemned.

Carried.

On motion of *Dr. Taylor*, a vote of thanks to Messrs. Ward and Treherne for their papers, and to the other druggists for their attendance, was put and carried.

PROCEEDINGS OF  
THE TRI-STATE MEDICAL ASSOCIATION  
OF MISSISSIPPI, ARKANSAS AND TENNESSEE.

*Meeting held at Memphis, November 14, 15 and 16, 1899.*

The meeting was called to order by the President, Dr. E. H. Martin, of Clarksdale, Miss. After a prayer by Rev. W. H. Neel, the address of welcome was delivered by Duncan Martin, Esq.

The minutes of the previous meeting were read and adopted.

*Dr. Wm. Krauss*, as one of a special committee on legislation, made a verbal report of the committee's efforts to have a law passed prohibiting the sale of morphin and other narcotics except on a prescription from a physician. *Dr. Krauss* said he made a special trip to Nashville and appeared before the judiciary committee. That committee rejected the bill on the ground that such a law would create a monopoly in favor of the physician, which would operate against the druggists. *Dr. Krauss* said the Nashville physicians gave him every assistance, but the bill could not be passed.

*The President* appointed a credentials committee as follows: Alfred Moore, of Memphis, McNeil, of Olive Branch, Miss., and Wilkins, of Lewisburg.

*Dr. Wm. Krauss* moved that the program as arranged be strictly adhered to, any physician failing to appear in his turn being dropped to the bottom of the last day's session, the other papers moving up accordingly. Carried.

The first paper was *An Address on the Progress of Medicine*, by *Dr. Frank A. Jones, of Memphis*. Only a few subjects were discussed. Malaria enters the body in some unknown way, nor do we know its life history outside of the body. From good authority we now believe it to enter the body by the bite of the mosquito. The writer was the first one in the Mississippi Delta to protest against the use of quinin in malarial hematuria, which is neglected malaria. Quinin antagonizes the plasmodium but not the toxin it produces. Paresis of the bowels was often seen by him in this condition, but is not touched upon by textbooks. Typhoid fever is on the decrease, thanks to sanitation and preventive medicine. Tuberculosis, he

thinks, is inherited. The negro is very prone to this disease, and also to venereal diseases. There is still a wide difference as to who should treat appendicitis, the physician or the surgeon. The address closed with a tribute to American physicians.

*Dr. Alfred Moore, of Memphis,* presented a specimen of *Monstra per Defectum*. It was born of youthful parents. The mother had a vulvo-vaginal abscess one year before and the father syphilis three years before. An attack of pelvic inflammation was followed in ten days by a miscarriage, the left foot and cord presenting. The placenta was pulled out with the fingers. The fetus showed *acrania* with pseudo-encephalocele and other deformities. The abdominal cavity contained the liver, kidneys, appendix, bladder, internal genital organs, and a portion of the small intestine. The thoracic cavity contained the heart, spleen, stomach, lungs, and most of the small intestine, a knuckle of which passed through the foramen magnum. The diaphragm was present.

*Dr. Wm. Krauss, of Memphis,* said that such cases are extremely rare. He had dissected one at the Pathologic Institute in Wurzburg University.

*Dr. N. F. Raines, of White Haven, Tenn.,* read a paper on the *Management of the Insane*, giving the methods in use at the Shelby County Poor and Insane Asylum, of which he is Superintendent. The surroundings should be as cheerful as possible. He objects to the word "asylum;" they should be called hospitals for the insane. Psychical treatment, suggestion, encouragement and sunshine are valuable. Exercise must be taken, diversion, singing, music and other amusements furnished, and everything kept clean and attractive around them. Games, pictures, flowers, etc., contribute to a good result. Good food, personal cleanliness, care in regard to visitors, avoiding a dime museum air, and individual attention to each case, were insisted on.

*Dr. J. S. Stanley, of Verona, Miss.,* thinks the appointment of staffs of physicians to asylums tends to avoid routinism and furnish the best care to each patient.

*Dr. M. Goltman, of Memphis,* has worked among Dr. Raines' patients and approves of Dr. Stanley's idea. He found many of the women with pelvic trouble, and in two of them operation cured the insanity. In another case temporary cure was brought about by removal of a cyst of the brain, and in still another very remarkable improvement followed castration.

*Dr. R. W. Barton, of Marion, Ark.*, mentioned a case in which insanity with homicidal tendencies was cured by a purgative and quinin.

*Dr. Wm. Krauss* said that *Dr. Raines* deserved the greatest credit for his efficient administration and many improvements in the conduct of the county asylum. These positions are political, and usually are filled by some one whose sole qualification is a "pull."

The paper was further discussed by *Drs. Reilly and Buford*.

*Dr. Wm. Krauss* read a *Report of Four Months' Service in the Medical Department of St. Joseph's Hospital*. (To be published in January number of the LANCET.)

*The President* asked if the estivo-autumnal organism would yield to quinin. He favored giving it hypodermatically in the beginning of this form.

*Dr. F. A. Jones* asked if *Dr. Krauss* had seen paresis of the bowels in malarial hematuria, and what was the pathology.

*Dr. R. W. Barton* said he had seen paresis of the bowel once in this disease.

*Dr. J. R. Crow, of Charleston, Miss.*, thinks malarial hematuria should be treated by quinin in large doses. In one case he gave 160 grains in thirty-six hours (per enema).

*Dr. J. H. McLendon* took the view that *Dr. Crow's* patient got well in spite of the quinin.

*Dr. M. Goltman*, in regard to some of the cases of dysentery, emphasizes the value of stretching the sphincter. He gives quinin in malaria when the fever is declining.

*Dr. Wm. Krauss* said that the estivo-autumnal organism is quite resistant to quinin; that he had never seen paresis of the bowel in hematuria. In giving quinin hypodermatically he injects into the flank or under the scapula only, largely diluted, with an antitoxin syringe. The pathology of intestinal paresis is traceable to the splanchnic area of the sympathetic.

*The President's Address* was read by *Dr. E. H. Martin, of Clarksdale, Miss.*, on *The Grain of Truth and the Grain of Salt*. We have few specifics in medicine, hence we are constantly on the alert and experimenting. All things should be examined for the grain of truth, however foolish and superstitious they may seem. The grain of truth in homeopathy is utilized in our serum-therapy; that in



faith cure, Christian science, etc., in our hypnotism. When our usual means do not suffice, the physician should not fail to make use of the help a "fake" may offer. Many of the theories propounded, e.g., those of Koch's lymph, Edson's aseptolin, Brown-Séquard's elixir, etc., were contaminated by a grain of salt. Empiricism is the mother of scientific medicine.

*Dr. E. C. Ellett, of Memphis*, read a paper on *Remarks on Diseases of the Eye, Ear, Nose and Throat in the Negro*. (To be published in the January number of the LANCET.)

*Dr. Jere L. Crook, of Jackson, Tenn.*, said that in three hundred examinations of the color sense in negroes for the Illinois Central R. R. only two were found color blind, and these two were the only color blind negroes reported on the system.

*Dr. Richmond McKinney, of Memphis*, agreed with Dr. Ellett as to the rarity of tonsillar hypertrophy, and the non-existence of adenoids. This last fact is not recognized by eastern rhinologists.

*Dr. J. F. Hill, of Memphis*, has seen two cases of trachoma in the negro, one of which was very severe. He has not seen any color blindness, but many corneal ulcers. In the nose, the wide nares, unobstructed circulation and mode of living, gives the negro comparative immunity from colds.

*Dr. Jacob Deutsch, of Memphis*, said that a mechanical as well as atmospheric cause of catarrh should be recognized. He asked why the essayist had not mentioned ozena.

*Dr. Sauls, of Saulsbury, Tenn.*, said that in forty years he had not seen a cataract in the negro.

*Dr. Frank A. Jones* said that if Dr. Sauls would come out to the East End Dispensary he would show him a hundred.

*Dr. J. L. Minor, of Memphis*, agreed in the main with the essayist's observations, but thought he underestimated the frequency of trachoma in the negro. He has published a number of cases in answer to Burnett's statement as to their rarity, and quite a number are reported from the New Orleans hospitals. Iritis is very common, and due to untreated syphilis.

*Dr. E. C. Ellett* said that as he did not examine for any railroad he had no observations to make as to color blindness in the negro, but reiterated the statement as to the frequency of cataract. Trachoma is not common in this locality, and he has seen very few cases in the negro. Ozena is a symptom, and means either atrophic rhinitis or syphilitic rhinitis, both of which he had considered.

*Dr. A. B. DeLoach, of Memphis*, read a paper on *Enterocolitis in Children*. It is due to improper food. Streptococci and the ameba coli may be present, but we cannot say that they are a cause. Infectious diseases, bad hygiene and seasons (July) predispose to the disease. It is most frequent in the month having the highest mean temperature. The bowel may present catarrhal, ulcerative or membranous inflammation. Ulcers are common, follicular ulceration being found in 33½ per cent. of cases. Larger ulcers are seen in the colon and lower ileum, penetrating to the muscularis. It is to be diagnosed from typhoid and intussusception. In treatment the diet is all-important. The breast is the best diet. A purgative (oil) should be given and repeated in three hours if it fails to act. Milk, skimmed, boiled, peptonized, diluted with rice water, beef tea, beef juice, meat broths, white of egg and barley water, etc., must be tried till a food is found that does not disagree. Do not feed too often. Brandy, one to ten of water, is the best stimulant. Irrigation of the rectum with saline solution, boric acid and witch hazel may be used. The writer does not approve of nitrate of silver; opium by mouth or rectum, with starch water, is often of use. The prognosis is guarded.

*Dr. D. D. Saunders, of Memphis*, spoke of the edema of the face and extremities, to which the essayist alluded, as evidence of faulty kidney action.

*Dr. F. D. Smythe, of Memphis*, has never lost a case. He uses cold packs, calomel, ipecac and calcined magnesia, and withholds food for twelve to twenty-four hours. He thinks milk is a positive poison in this disease. Astringents are of no value.

*Dr. I. A. McSwain, of Paris, Tenn.*, thinks children are fed too often, and don't get enough water. He advises the withdrawal of food in this disease, especially milk.

*Dr. B. G. Henning, of Memphis*, said that the symptoms vary from a simple diarrhea on to the worst forms. Mucus in the stools is indicative of the third stage of catarrhal inflammation; at first there is constipation from inflammatory paresis, as is seen in peritonitis. Milk is the diet for infants of all ages. He prefers the top of the milk and rice water, in equal proportions.

*Dr. G. G. Buford, of Memphis*, finds the cases are much harder to manage when they get started than when taken early.

*Dr. Alfred Moore* favors milk whey as a diet.

*Dr. Heber Jones, of Memphis,* said that all mothers do not give good milk, nor does milk always agree. Facts cannot be dethroned by theory, and it is a fact that he has used beef juice in many cases to advantage, in cases where milk did not agree.

*Dr. W. B. Sanford, of Memphis,* thought the child's diet should be a diversified one in health from the beginning.

*Dr. A. B. DeLoach* said that ipecac was contraindicated, because it might produce vomiting. He withholds food until the stomach is retentive. The casein in milk often seems to act as a foreign body. He has never tried whey.

*Dr. A. G. Dickson, of Paragould, Ark.,* read a paper on *Cholera Infantum*. After giving the symptoms, he stated that he precedes his treatment by a hypodermic of morphia and atropia, then uses enemata, phenacetin, astringents, with lactopeptin and opium. He uses calomel in mild cases only, as its action is too slow for severe cases.

*Dr. J. H. Reilly, of Memphis,* read a paper on *Abscess of the Lung Following Pneumonia, with Report of a Case*. This disease arises from a debilitated constitution, and is predisposed to by Bright's disease, alcoholism, etc. The abscess usually forms about the time a cure of the pneumonia is looked for. The symptoms become more distressing, of a septic character, and cough and expectoration increase. Consolidation persists, and we have no positive sign till the pus breaks into a bronchus and is expectorated, when signs of a cavity may appear. Suggestive of tuberculosis, the sputum shows no bacilli, but elastic fibers, Leyden's crystals, hematoïdin, and bilirubin. Pneumococci and the organisms of suppuration are also found. The fetor of the breath and great depression seen in gangrene are absent. If at the base, an abscess may be mistaken for empyema. The abscess cavities are usually small and multiple. The writer thinks that many cases are diagnosed as empyema, especially in children. The case reported was that of a man aged 56, who had pneumonia. In the third week the cough and expectoration increased, the sputum containing the diplococcus of pneumonia and staphylococci, but no bacilli. Under chloroform resection of the fifth and sixth ribs in the axillary line was done by Dr. Saunders. When the chest wall was opened the patient collapsed and was only resuscitated by inverting him. Half a pint of thick, foul pus was removed and a tube inserted. Irrigation was practiced

on alternate days for a while, the solution being coughed up as fast as injected. In a month the wound closed prematurely; cough and expectoration returned and the wound was reopened and a gauze drain inserted. The opening finally closed, but a second attack of pneumonia, coming on while in another city, with metastatic abscesses in the kidneys, caused his death. A second case showed pain and a fluctuating tumor, both of the right axillary line, with cough of one week's duration. Half a pint of foul-smelling pus was let out and found to contain elastic fibers and crystals, with Friedlander's bacillus. Recovery. Murphy first collapses the lung by intra-pleural injections of nitrogen gas, then opens, locates and incises the abscess. The prognosis depends on the size, number and location of the abscesses and the condition of the patient.

*Dr. D. D. Saunders* said he saw the case referred to by *Dr. Reilly*. He corroborated the points brought out by the essayist. He regards irrigation of the cavity in the lung as a procedure requiring much care, and liable to be followed by a fatal issue.

*Dr. F. D. Smythe* advised irrigation by the double tubes.

The paper was also discussed by *Dr. Jelks*.

*Dr. E. M. Holder, of Memphis*, read a paper on *Abscess of Liver, with Report of Case*. Abscess of the liver is a tropical disease, rather frequent in the South and among the negroes. When located it should be opened and drained, exposing and stitching the liver to the abdominal wound before opening it, this being all done at one sitting. Hemorrhage is a frequent complication of the operation and is best controlled by suture. A case was reported in which the abscess was due to traumatism, and after verifying the diagnosis by aspiration the abscess was opened. The ninth rib was resected and the liver sutured to the wound and opened. Half a gallon of pus was evacuated, the cavity packed, and recovery rapidly followed.

*Dr. F. A. Jones* saw *Dr. Holder's* case. He first suspected pleurisy, but on further examination made a diagnosis of abscess of liver. He has seen three cases of abscess of the liver in the last six months, and thinks they are more frequent than supposed.

*Dr. F. D. Smythe* said that abscess of liver sometimes follows hemorrhoids. He prefers the operation done at one sitting. He reported a case of abscess of the liver in a young physician who had been treated for typhoid fever. He did a similar operation to *Dr. Holder's*—stripping the periosteum from the rib and making the operation comparatively bloodless.

*Dr. J. H. Reilly* is surprised that no microscopic examination of the sputum was made for tubercle bacilli.

*Dr. T. C. Martin*, of *Cleveland, Ohio*, reported a case of abscess of the liver in which a similar operation was done. He had a fistula follow opening below the ribs.

*Dr. W. B. Burns*, of *Deckerville, Ark.*, has seen cases in his practice caused by malaria and diseased kidney.

*Dr. T. J. Happel*, of *Trenton, Tenn.*, thinks many cases get well without surgical operation.

*Dr. J. S. Stanley* has treated cases of abscess of the liver which ruptured spontaneously into the alimentary canal, and indorses letting nature take its course.

*Dr. E. M. Holder* was glad that *Dr. Happel* mentioned the medical side of treatment. He has seen a case rupture into the pleura and intestinal tract. He advocates stripping the periosteum from the rib.

*W. B. Sanford*, of *Memphis*, read a paper on *The Cause, Diagnosis and Treatment of Retrodeviation of the Uterus*. All retroflexions are not preceded by versions, but neglected versions are apt to become flexions. They are usually caused during the puerperium and menstrual period in virgins by anything causing increased intra-abdominal pressure. Special attention should be given the bladder and rectum. Flexions and versions occur in nullipara, who then are sterile. Nine-tenths of the cases of sterility have flexions or versions. The puerperal state is the cause in a large majority of cases. After labor and the following sixty days is the most fruitful time for their causation. The diagnosis is easy. They are usually accompanied by ovarian disease. The treatment is medical, surgical and prophylactic (during pregnancy). Tonics, rest, electricity, diet and keeping womb in position by supports and pessaries, constitutes the medical treatment; curettement, repairing tears, Alexander's operation, ventro-fixation, etc., the surgical.

*Dr. Alfred Moore* takes issue in regard to the use of the sound. He never uses it as a means of diagnosis, but prefers to examine under an anesthetic.

*Dr. J. L. Jelks*, of *Memphis*, wants to emphasize the complications of the rectum and bladder by engorgement. If the probe is aseptic he sees no objection to it.

*Dr. W. B. Sanford* rarely uses the probe, and spoke of the implication of the rectum and bladder due to engorgement.

*Dr. Edwin Williams, of Memphis,* read a paper on *Arguments in Favor of the Early Use of Forceps*. His arguments are as follow :

1. It saves the mother a continuance of her pain, especially nervous primipara.

2. They are indicated where injury to mother or child threatens.

3. It does not increase risk of rupturing perineum.

He removes the forceps when he can reach the chin through the rectum. He does not approve of quinin to increase pains. On the whole he believes in giving nature a good chance, but believes in aiding her when his judgment indicates, which is early.

*Drs. W. B. Sanford, Alfred Moore and R. W. Barton* advocate the early use of forceps.

*Dr. F. S. Raymond, of Memphis,* says we use forceps in other people's families but not in our own, and advises not to put on the forceps unless you are sure delay will cause injury.

*Dr. J. W. Sanford* asks if *Dr. Williams* objects to quinin on the ground that it increases the liability to post-partum hemorrhage.

*Dr. Edwin Williams* does not think quinin has any such effect.

*Dr. W. S. Wilkins, of Lewisburg, Miss.,* read a paper on *Some Points in Malarial Hematuria*. Malarial hematuria is not a disease *per se*. It is a sequel to a long-continued and poorly-treated case of malarial toxemia. Its definition—blood disintegration. This is the only morbid change found in this condition. It is not a disease of the liver or kidney. He has treated forty cases in the last two years with good results. He used quinin but once, and opposes its use in this condition, and advocates an eliminative and supportive plan of treatment. He thinks quinin aggravates the blood disintegration and the kidneys become choked up with broken-down blood corpuscles. Uremia was the common cause of death where quinin was used.

*Dr. Wm. Krauss* asked *Dr. Wilkins* how he reconciled his statement that these cases usually died of uremia with his statement that there was no kidney or liver pathology.

*Dr. T. J. Happel, of Trenton, Tenn.,* read a paper on *Pseudo Smallpox in Gibson County, Tenn.* He reported quite a number of cases where vaccination did not prevent this disease. Ordinarily the death rate in smallpox is high, while among these cases there were no deaths. In these cases the eruption was general, passing through the various stages of papule, vesicle and pustule, but not

surrounded by an inflammatory base and leaving no scars. There was an absence of pain and itching in most cases. This disease was only infectious in the last or pustular stage. There was no regularity about the appearance of the eruption and no medicine was given.

*Dr. Heber Jones* thinks the disease in and around Memphis is genuine smallpox. It has been somewhat irregular in symptoms, and the death rate has been small. He thinks vaccination will prevent an outbreak of the disease, and gives some statistics of the outbreak at city hospital, where some parties properly vaccinated contracted smallpox. He thinks *Dr. Happel* is mistaken in his diagnosis.

*Dr. F. S. Raymond* said that *Dr. Happel* surprised him, as he thinks the cases were smallpox. Cases in the negro pit but little; vaccination will protect if done properly and at the right time. Maybe the Porto Rico smallpox, which is mild, and may have gotten here during late war. He thinks *Dr. Happel* looked for too severe attacks.

*Dr. Wm. Krauss* thinks *Dr. Albright* has successfully diagnosed smallpox in these cases, and thinks *Dr. Happel* sincere but mistaken.

*Dr. T. J. Happel* says vaccination will prevent true smallpox but did not prevent this disease, therefore he feels sure this disease is not true smallpox.

*Dr. F. D. Smythe, of Memphis*, read a paper on *Vesical Calculi—Report of Four Cases in Children*. Calculi commonly exist in persons 40 to 60 years of age. The symptoms are the same as in adults, except there is great hypertrophy of the external genitals and prolapse of rectum. The treatment is prophylactic and surgical. Diet is the principal prophylactic treatment.

Case I. White male, aged 5; general condition bad. Was put on tonic treatment for few days and then did suprapubic operation. Patient died.

Case II. White male, aged 4. History of stone dated back two years. Urine filled with pus; temperature 103°F.; inflamed prepuce; stone filled the bladder; patient septic. Stone removed by suprapubic route. Patient died.

Case III. White male, aged 3. Much pain and tenesmus. Stone detected by finger in the rectum and exploration. He has not yet operated on this case.

Case IV. Negro male, aged 2. Child badly nourished; prolapsed rectum; click heard on exploration. Suprapubic operation. Recovery. Case presented to the society.

The negro race presents the large majority of cases, and the condition is very rare in females. Stones are usually of the uric acid variety, and are common in all localities, with no relation to the quality of drinking water. He urges rectal and bimanual examination. The treatment is essentially surgical after the stone is found. The suprapubic operation is the ideal one.

Dr. W. D. Sumpter, of Nashville, thinks the diagnosis is easy. Solvents are no longer resorted to. He reported a case similar to Dr. Smythe's, in which he used the smallest silver probe as a searcher. He never uses a catheter unless the child cannot pass his urine. He uses catgut or silk for suturing.

Dr. T. J. Happel said that out of six cases of vesical calculus in children he had seen, two were in female children.

Dr. Watson, of Eudora, Miss., reported a case in a child which was one of the number upon which Dr. Smythe operated.

Dr. C. R. Shinault, of Helena, Ark., said that vesical calculi in children were almost unknown to him.

Dr. F. D. Smythe has never found a stone in the bladder of a female. Early diagnosis and treatment are important to prevent complications.

Dr. Wm. B. Burns, of Deckerville, Ark., read a paper on *The Mosquito as a Definitive Host in Malaria*. The relation of the mosquito to malaria was observed in the last century. The entomology of the mosquito was discussed fully. The female alone is related to the cause of malaria, as the male does not require food at all. The insect infects its larvæ and these are taken in with dust, water and food. Koch is convinced of the power of mosquitoes to transmit the disease, and even that it is the only means of inoculation. Dr. Burns, in his own investigations, was not able to find the bodies described by Thayer, Koch, or Ross. He, however, has found some pigment which was non-motile. He concludes that if the mosquito is to be accepted as the definitive host in malaria, war must be declared against this insect.

Dr. C. R. Shinault, of Helena, Ark., read a paper on *Hot Scrub Baths, an Important Factor in the Treatment of Malarial Complications*. Inasmuch as he had found that malarial patients were greatly



benefited by a trip to Hot Springs, the idea suggested itself to him to try the hot baths on his malarial patients at home, and he has done so with good results. In addition to adding to personal cleanliness, it is a peripheral, vascular exercise. He uses friction with the bath.

*Dr. F. D. Smythe* concurs with *Dr. Shinault*, as he thinks nothing can take the place of heat and friction in many diseases.

*Dr. John L. Jelks, of Memphis*, read a paper on *A Rectal Curiosity—Case Report with Photograph—Some Points in Pelvic Surgery*. The case was one in which hemorrhoids had been treated by injection. The tissues around the anus sloughed and the rectum presented as an inflamed mass the size of a cocoanut. No operation was attempted, but it was thought that the best plan would have been to open the abdomen and draw up and anchor the large intestine, thus reducing the prolapse, and later to try to build up a perineal body. Perineal suppuration tends to burrow more when situated anterior to the center. Suppurations in this part should be dealt with by early free incision.

*Dr. A. B. Cooke, of Nashville*, strongly condemns the injection of hemorrhoids, as also does *Kelsey*. It is not curative, as the trouble will recur in from three to five years. It may cause sloughing.

*Dr. T. C. Martin, of Cleveland, O.*, says that injection is not precise, non-curative, and unscientific.

*Dr. F. D. Smythe* condemns injection. He ligates internal and excises and sutures external hemorrhoids. He has had good results, and while undoubtedly injection cures some cases, we cannot control its effects, and he disapproves of it.

*Dr. R. S. Stanley, of Memphis*, said that in *Dr. Jelks'* case injection had been done eight years previously. He likes the ligature operation.

*Dr. W. B. Sanford* reported a case of strangury of several years duration. He found a urethral stone and removed it, but left hemorrhoids caused from straining. These were injected by a quack. In a week or two *Dr. Sanford* found the rectum sloughing, followed by peritonitis and death.

*Dr. T. J. Happel* said that injection had been commonly used by the general practitioner. He has had many permanent cures from it and has never seen abscess or sloughing. He uses carbolic acid but likes the clamp and cautery.

*Dr. B. F. Turner, of Memphis*, uses injection with carbolic acid and has had no bad results himself, nor has he seen any in the practice of *Dr. Henning*, who uses this method extensively.

*Dr. Heber Jones* has used injections with good results. A danger is from sudden death due to thrombus or an air bubble. He has seen two fatal cases. One died in one minute, the other from secondary hemorrhage four days later.

*Dr. Sidney Witherington, of Memphis*, has seen bad results, but not fatal.

*Dr. J. L. Jelks* has used injections and had recurrences in three to six months. He has not seen any permanent cures from injection. All methods may fail in the presence of pelvic inflammation. He saw one injection operation, after which the patient died from hemorrhage.

*Dr. A. B. Cooke, of Nashville*, read a paper on *The Rectal Valve; an Anatomic Fact and a Pathologic Factor*. The rectum is difficult to examine beyond three inches. Now it is easier by means of instruments. The valves are usually three in number. The largest is three inches up, the next largest at the upper end, then one between these two, and rarely one an inch from the anus. They form a spiral, reaching around one-third or one-half of gut, and are from one-half to three-fourths of an inch deep. They delay the fecal passage. Many authors, including Kelsey and Matthews, deny their existence, and say they are folds in the mucous membrane. Martin says they exist, and are most prominent when the gut is distended. They exist as a fibrous band, which has been confirmed microscopically. He endorses Martin's views. The valves may be the cause of benign stricture, as inflammation of rectum may cause hypertrophy and rigidity of these valves. They are a factor in chronic constipation.

*Dr. Thos. Chas. Martin, of Cleveland*, read a paper on *Obstipation and its Practical Management*. The rectal valves are made more distinct by distension of the rectum. They are composed of the mucosa, then fibrous tissue, then circular muscular fibers, and then areolar tissue and vessels. They project half way across the rectum, and surround more than one-half of its circumference. They are usually three in number, and their use is to delay the feces. Obstipation is that form of obstruction due to organic obstruction. Constipation is delayed feces in the high parts of the gut. In obstipa-

tion there are insufficient stools, varying with diarrhea, intestinal autointoxication, and neurasthenia. The patients acquire the purgative habit. We find benign strictures due to increased fibrous structure in valves, and under these circumstances we can see and feel the thickened valves. The symptoms are often caused by a hypertrophy of the valves short of stricture. The treatment is to expose the valve by the proctoscope, seize it at its edge and determine its size, etc., by a blunt hook. Holding it up with two tenacula, the fibrous layer is cut in two places, the cuts converging to the free border and making a pyramidal flap. Several cases were reported to show the utility of this procedure.

*Dr. J. L. Jelks* said we can only see these valves with a proctoscope, and not with a bivalve speculum. They are often affected by syphilis. So-called biliousness is often probably intestinal autointoxication from hypertrophy of these valves.

*Dr. W. D. Sumpter, of Nashville*, read a paper on *Injuries to the Patella—Report of a Case of Stellate Fracture*. After discussing the causes, symptoms and treatment he arrives at the conclusion, from personal observation, that he has obtained the best results with the catgut suture.

*Dr. J. L. Crook, of Jackson, Tenn.*, does not think wiring is usually necessary. He uses U-shaped adhesive plaster strips, and reported a case of bilateral dislocation of the patella (not synchronous) and one of fracture in a negro, who recovered without lameness in spite of absolute disregard of orders to keep in bed.

*Dr. J. H. Venn, of Memphis*, thinks wiring is the only way to get bony union. All other methods get fibrous union.

*Dr. R. W. Tate, of Bolivar*, thinks the wire sometimes causes sinus later. He prefers silk or catgut, encircling and not penetrating the bone. He has seen late separation of as much as five inches.

*Dr. F. D. Smythe* sutures immediately with chromicized catgut.

*Dr. M. Goltman* advises wiring and is opposed to the strapping with adhesive strips, as it does not coapt the fragments, as proven by X-ray picture. He has seen one case walk after fracture of the patella. He doubts that these fractures can be caused by muscular action unless a tendency to fatty degeneration is present.

*Dr. W. D. Sumpter* was pleased to hear of the X-ray experience. He thinks fracture can be caused by muscular action. He is careful in drilling holes to make them emerge one-eighth of an inch above the under surface and not into the joint.

*Dr. A. E. Cox, of Milan, Tenn.,* read a paper on *Typhoid Fever; Some of its Complications and Sequelæ.* (To be published in the January number of the LANCET.)

*Dr. J. C. Copeland, of Memphis,* said that the plan in the East was to consider a fever as typhoid when uninfluenced by quinin. The microscopic examination should be made.

*Dr. T. J. Happel* thinks the Southern doctor is better qualified to diagnose and deal with Southern fevers than the Northern doctor.

*Dr. T. J. Crofford, of Memphis,* does not think we can call a fever typhoid because it is not influenced by quinin; for in malarial fever complications may exist on which quinin will have no influence.

*Dr. Wm. Krauss, of Memphis,* mentioned a case having many clinical signs of typhoid, uninfluenced by quinin, that showed no Widal reaction, and whose blood contained "crescents." Subcutaneous administration subsequently relieved the patient.

*Dr. W. B. Sanford* thinks the treatment is easier than the differential diagnosis. We do not know the exact origin of typhoid. He has seen outbreaks in families not affecting those of their neighbors who came in to nurse them.

*Dr. J. L. Crook* said that the antiseptic and eliminative treatment was the best. He has seen 125 cases with less than 2 per cent. mortality.

*Dr. J. H. Reilly* thinks the Northern investigators (Thayer and others) deserve praise and encouragement for their scientific study of our continued fevers. Laboratory work should be encouraged more by the general practitioner.

*Dr. C. Travis Drennen, of Hot Springs, Ark.,* read a paper on *Care of the Mouth and Teeth in the Syphilitic.* The author urges thorough rubbing and scrubbing of the gums with a heavy toothbrush three to four times daily, followed by application of a saturated solution of boric acid. Where the gums are spongy, bleeding easily under this process, alcohol is applied to the gums for the purpose of hardening and bringing about a more healthful condition of the same. Where bleeding ensues it is not to be deprecated but rather encouraged for the time being, for the reason that engorgement is relieved and pathogenic material washed away. The author claims that in following out this method mucous patches and secondary ulcerations about the mouth are measurably pre-

vented. He further suggested that vigorous rubbing or pressure of the gums on either side the teeth with the finger or thumb several times daily during a course of mercury, will do a great deal toward the prevention of salivation. He believes in the mechanical action of mercury, and that ptyalism is produced by a plugging of the small blood vessels in that locality, and that this friction or rubbing of the gums aids in removal of the same. Having followed this plan for many years, during which time he has used ung. hydrargyri locally in large doses, in certain instances reaching  $\frac{3}{4}$  oz. daily, he has not had a case of marked salivation.

*Dr. Henry Posert, of Memphis,* read a paper on *Some Obscure and Obstinate Forms of Neuralgia*. Supraorbital neuralgia is often hard to handle. It is prevalent in early summer, and eye treatment does little good. Brachial neuralgia is very obstinate and often gets well without treatment. Neuralgia extending from the sixth to the last dorsal nerve is especially obstinate, though often benefited by the coal tar products. The same may be said of sciatica. Neuralgia is often incurable. (This paper will be published in the LANCET.)

*Dr. T. J. Crofford, of Memphis,* read a *Report of a Series of Gynecological Cases*.

Case I. Attempted abortion by the introduction of a hairpin into the uterus. It was removed with difficulty under chloroform without interfering with pregnancy.

Case II. Peritonitis. Operation revealed adhesions and intestinal perforation. The patient recovered, and one month later was sufficiently well to be about. The cause of the perforation was not discovered. He spoke of a case in which perforation was caused by intestinal worms.

Case III. Gunshot wound of the abdomen in a young woman. Laparotomy showed thirteen wounds of the intestines, the colon being injured. These were repaired and the patient recovered and has since gone through pregnancy and labor.

*Dr. J. W. Gilbert, of Corinth, Miss.,* said that the aversion of women to childbearing was the cause of criminal abortion, this being so more often than cases of illegitimate pregnancy.

*Dr. Hays, of Byhalia, Miss.,* mentioned a case in which a girl placed an instrument in her vagina for some unknown reason.

*The President* spoke of a colored woman who placed a jelly glass three inches tall in the vagina to support a prolapsed uterus. When removed, the prolapsus was found to be cured.

*Dr. Alfred Moore* has seen a case of lacerated perineum in a young negro girl from copulation.

*Dr. J. P. Runyan, of Pine Bluff, Ark.*, urged early operation in intestinal perforation.

*Dr. T. J. Happel* said this was especially the advice to be given in cases of gunshot wounds.

*Dr. J. P. Runyan, of Pine Bluff, Ark.*, read a paper on *The Suprapubic versus the Vaginal Method of Dealing with Pelvic Inflammatory Processes*. He has never seen a case where the vaginal route was indicated. Adhesions cannot be broken up through the vagina, and cases thus operated on usually need a second (abdominal) operation. The suprapubic method is radical. Operating through the vagina one is likely to puncture the uterus. It is like shooting at a target in the dark.

*Dr. T. J. Crofford* endorsed this view in general, but said that often pelvic abscesses could be punctured through the vagina. He thinks there are occasions for the vaginal operation, one factor being the operator's familiarity with the method.

*Dr. W. B. Sanford* thinks if the diagnosis can be made early a choice of routes is permitted.

*Dr. J. W. Gilbert, of Corinth, Miss.*, read a paper on *Two Cases Reported to Show the Delicacy of Certain Ethical Relations*. The cases were brought to two Memphis physicians for operation and treatment. The people returned to him with feelings changed from those of friendship to enmity, for which he blamed the two physicians. [The circumstances were so explained by the two consultants as to show that Dr. Gilbert was in error in thinking their words or actions had influenced this change of sentiment.]

*Dr. R. W. Barton, of Marion, Ark.*, presented a *New Auto-extension Fenestrated Splint*. The splint consists of four iron screws mounted on sole leather plates. These plates are fastened above and below the seat of fracture by plaster of Paris bandages and buckle screw plates put on the iron screws so that turning them forced the two portions apart, at the same time maintaining fixation, and leaving a large fenestrum for the inspection of the seat of fracture, and allowing the application of dressings to it. A patient

with fracture of the forearm was shown, wearing the splint. Dr. Barton read letters from Dr. Jno. B. Murphy, of Chicago, Duncan Eve, of Nashville, Pettijohn, of Kansas City, and Smythe, of Memphis, endorsing the splint.

*Dr. E. H. Martin, of Clarksdale, Miss.*, thinks the splint is admirable, but questions Dr. Barton's action in patenting it.

*Dr. T. J. Happel* had read a section of the by-laws of the American Medical Association declaring such an action reprehensible, and asked for a ruling as to the propriety of the society discussing the paper under these circumstances.

*The President* (Dr. C. T. Drennen) ruled the discussion out of order.

*Dr. E. H. Martin* appealed from the decision of the chair. The chair was sustained.

*Dr. T. J. Happel* then moved a fifteen minute recess for the purpose of allowing an informal discussion of the splint. Carried.

Dr. Martin took the chair, and

*Dr. F. D. Smythe* spoke in favor of the splint and read a letter from the editor of the *Journal of the Am. Med. Ass'n*, saying that physicians might use patented devices, but it was reprehensible for a physician to patent such a device.

The meeting was then called to order by the President.

*Dr. Heber Jones* moved that a committee be appointed to consider the ethics of Dr. Barton's action. Carried. Drs. Heber Jones, Happel and McKinney were appointed.

*Dr. A. L. Elcan, of Memphis*, read a paper entitled *Was it a Nervous Reflex?* The case was of a male child, aged 3, with phimosis and a cough. No abnormal physical signs were found in the chest, circumcision was done and the cough stopped.

*Dr. G. G. Buford* said he thought it was the pain caused by the retained smegma and not a nervous reflex that caused the cough.

*Dr. A. B. Oliver, of Memphis*, read a paper on *Urethrotomy*. Treatment of strictures by dilatation is condemned. He prefers internal urethrotomy, controlling bleeding by turning the penis up over the abdomen. Local anesthesia is usually sufficient. He also reported a case of *Application of a Madstone* to a bitten child. The virtue of the stone lies in its being light and porous. It has no curative action.

*Dr. J. P. Shearon, of Corinth, Miss.,* read a paper on *Puerperal Eclampsia; Report of Two Cases, with Placenta Previa*. In both cases the child was undelivered. Delivery was at once accomplished, in one case by forceps, in the other by compression of the uterus. Veratrum viride, digitalis, calomel, salts and bromides were given. the first hypodermically, the last by the mouth after consciousness returned. Both patients were in convulsions and unconscious, but both recovered.

*Dr. L. A. Yarbrough, of Covington, Tenn.,* uses pilocarpin in addition to the treatment mentioned by Dr. Shearon.

*Dr. J. S. Stanley,* in addition to these measures, uses venesection, which he thinks materially aids in the cure.

*Dr. T. J. Happel* advocates venesection.

*Dr. M. Goltman* emphasized the preventive treatment. He has seen cases requiring two months treatment for their relief. He would not give ergot to control hemorrhage in such a case, but would welcome its appearance. He urges venesection and veratrum viride in heroic doses.

*Dr. McNeill, of Olive Branch, Miss.,* thinks veratrum viride has no place in the materia medica.

*Dr. E. E. Haynes, of Memphis,* does not indorse routine venesection. Some patients need all their blood.

*Dr. F. A. Jones, of Memphis,* made some remarks on *Pleurisy with Effusion*. He is opposed to routine resection of a rib in empyema, as it is unnecessary for drainage. He is also opposed to routine irrigation.

*Dr. J. H. Reilly* thinks Dr. Jones' views are quite sound.

On motion, the society expressed its regret at the absence of Dr. T. K. Powell, of Dancyville, Tenn., who was detained from the meeting by illness.

The following officers were elected:

President—Dr. C. Travis Drennen, of Hot Springs, Ark.

Vice-President for Mississippi—Dr. Hays, of Byhalia.

Vice-President for Arkansas— Dr. J. P. Runyan, of Pine Bluff.

Vice-President for Tennessee— Dr. I. A. McSwain, of Paris.

Secretary— Dr. Richmond McKinney, of Memphis.

Treasurer—Dr. Marcus Haase, of Memphis.



On the recommendation of the Committee on Credentials the following were elected to membership :

P. M. Farrington, Memphis; R. W. Tate, Bolivar, Tenn.; W. A. Carnes, Kosciusko, Miss.; J. R. Nelson, Eureka, Tenn.; P. O. Cragg, Kerrville, Tenn.; L. W. Culberth, Stanton, Tenn.; S. L. Brister, Greenwood, Miss.; J. P. Runyan, Pine Bluff, Ark.; C. E. Ellis, Memphis; John McCrigger, Golden Lake, Ark.; N. R. Newman, Bride, Tenn.; Jno. Gray, Luxora, Ark.; Jas. L. Barton, Memphis; J. B. Pittman, Longtown, Miss.; S. P. Weigert, Rector, Ark.; T. G. Jones, Memphis; F. E. Baker, Stamps, Ark.; B. H. Cooper, Mill, Tenn.; Bruce Harkness, Memphis; Cliff C. Borum, Vincent, Ark.; Frank Ferrell, Jr., Ashland, Miss.; Ed. Chambers, Cuba, Tenn.; J. W. Laws, Memphis; Fleetwood Groover, Somerville; John C. Bell, Frayser, Tenn.; C. L. Maples, Olive Branch, Miss.; W. L. Hugston, Red Banks, Miss.; M. C. Ellis, Senatobia, Miss.; J. M. Williams, Monette, Ark.; Wm. L. Haynes, Memphis; Wm. T. Black, Memphis; R. A. Anderson, Arkabutla, Miss.; J. K. Hampson, Nodena, Ark.; J. A. Orr, Plantersville, Miss.; P. M. Kimbrough, Sheperdstown, Miss.; J. T. McClain, Shell Mound, Miss.; J. A. Mickleberry, Harrisburg, Ark.; J. J. Landreth, Air Mount, Miss.; C. W. McKnight, Palestine, Ark.; W. H. Tucker, Double Bridges, Tenn.; C. T. Candler, Marianna, Ark.; Robt. H. Mitchell, M. Moore, Memphis; W. C. Spencer, Verona, Miss.; J. H. Lackey, Ripley; N. S. Walker, Dyersburg; Wm. D. Sumpter, Nashville; J. L. Burns, Jonesboro, Ark.; F. P. Boatner, Potts Camp, Miss.; R. C. Pratt, Memphis; B. McElroy and W. B. Barner, Vandalia, Ark.; T. W. Lowry, Mississippi; T. G. Paden, Burnt Mills, Miss.; H. L. Sutherland, Rosedale, Miss.; D. A. Mohler, Crawfordsville, Ark.

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THE USE OF PROTARGOL IN OPHTHALMIC PRACTICE.—E. Praun (*Centralblatt für Praktische Augenheilkunde*, May and June, '99) says that since the introduction of cocain no substance of equal importance has been introduced into ophthalmic practice. The reporter has used protargol for the past fifteen months. Its especial value over nitrate of silver is that it is free from caustic properties and can be used without the slightest danger. In many cases where both eyes are affected he has treated one with protargol and the other with silver nitrate, the results being every time in favor of the protargol. The writer uses the drug in the form of compresses, douches, powders, and salves. He has used it in all forms of conjunctivitis, with or without involvement of the cornea.—*Medicine*, November, 1899.

## PROGRESS OF MEDICINE.

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REMARKS ON THE DIAGNOSIS OF LOCOMOTOR ATAXIA.—Hugh T. Patrick (*Medicine*, Nov. '99) says that in all cases of pains, uneasiness, or numbness in the legs or elsewhere, failure of vision, ocular paralysis, bladder trouble, refractory constipation or rectal tenesmus, periodical vomiting or "bilious attacks," or even attacks of stomach pain without emesis, diminished sexual power, anesthesia of the face, indolent ulcer of the foot, and all cases in which the patient complains of weakness, uncertainty, or ready tire of the legs, it is incumbent on the medical adviser to examine for locomotor ataxia.

He then asks for what is the examiner to look and by what is he to be guided in reaching a diagnosis of locomotor ataxia, and briefly answers in somewhat categorical fashion as follows:

1. Loss of knee jerk.
2. Reflex iridoplegia (the Argyll-Robertson pupil).

These two are par excellence the objective signs of locomotor ataxia, and any patient who has no patellar tendon reflex, and whose pupils contract with accommodation but not to light, is in all probability suffering with this disease.

3. History of lightning pains. The typical lancinating pains of locomotor ataxia are pathognomonic. They occur at irregular, generally rather long, intervals, and rarely last more than a day or two, generally a few minutes or a couple of hours. During their continuance they are distinctly but rapidly intermittent, the individual pain lasting only from a fraction of a second to a few seconds. But the typical pains in all their perfection are almost the exception rather than the rule, the atypical burnings, borings, and aches being quite as frequent, if diagnostically less pointedly significant.

4. Disorder of the vesical function—a relative retention, a relative incontinence, or both, as already described.

5. Analgesia of the legs. To examine the tactile sense alone is to make a grave error of omission. In the vast majority of cases sensation to touch in the lower extremities is intact until the dis-

case is well advanced, whereas the perception of painful impressions below the knee is frequently blunted in the very early stages. Having learned that the patient is instantly aware of a touch which disturbs only the hair on the legs and never reaches the skin, to find that a pin may be thrust through a fold of integument without pain is somewhat startling, but it is not an unusual finding.

6. A history or other evidence of specific disease is of major importance, provided infection has not occurred too recently. The prominent role of syphilis in the etiology of tabes may now be considered as demonstrated, but tabes is not syphilis of the spinal cord, and does not, like syphilis of the cord, appear within the first years of the infection. As a rule, locomotor ataxia begins eight or twelve years after the chancre; its appearance within five years is exceptional, but a longer interval than twelve years is far from rare. Author has now under observation a patient whose first symptoms of tabes were noticed twenty-five years after the initial sore of syphilis.

7. Ocular palsies, coming on suddenly, especially if more or less transient, are strong corroborative evidence of locomotor ataxia.

8. By far the greater number of cases of primary atrophy of the optic nerve are due to tabes, and this atrophy, with one or two indubitable signs, is quite sufficient for a diagnosis.

9. Very important in the way of confirmatory evidence are the various atypical pains and paresthesiæ, of which may be instanced numbness along the distribution of the ulnar nerve, in the legs and feet, in the perineal and anal regions or about the trunk, long-continued intercostal neuralgia, epigastric distress irrelative of meal time or choice of food, and a feeling as if the rectum contained feces or a foreign body. In the case of a female patient recently examined, this rectal discomfort was the first symptom complained of, and was so urgent that she had been faithfully treated for rectal disease and uterine displacement, and was finally sent for operation to a gynecologist, who referred her to the author.

10. In about 80 per cent. of all tabetics a more or less complete zone of anesthesia may be discovered around the body at about the mamillary level. As this anesthesia of the trunk is very rare in other diseases, its diagnostic value is considerable. It is not, however, a very early sign.

11. Analgesia of the ulnar nerve is frequent in tabes, quite rare

in the normal individual, and infrequent in all other diseases except general paresis. When, in the normal person, the ulnar nerve is forcibly pressed against the inner condyle or condyloid ridge of the humerus—a maneuver that is not difficult of execution—there is very considerable pain *at the point of pressure*. It is the absence of this pain which is diagnostic.

12. The peculiar normal testicular pain on pressure is said by Pitress to be absent in 75 per cent. of the tabetics. Author cannot confirm the figures, but he can attest the frequency of the symptom.

13. When present, fully-developed gastric crises are almost pathognomonic, and require but little confirmatory evidence. The same may be said of the typical arthropathies.

14. Diminished sexual power alone is of absolutely no value. An overwhelming preponderance of such cases are of psychic or local origin, and he has known a patient with locomotor ataxia preserve this function when he had incontinence of urine and feces, and his incoördination was so overwhelming that he could scarcely crawl. When psychic influences can be excluded sexual debility or impotence is of some diagnostic significance.

15. Before incoördination appears one can ordinarily demonstrate impairment of what is currently called the muscular sense, but what were better named sense of position or sense of motion—that is, the patient is unable to appreciate such light, passive movements of the toes or of an extremity as are at once perceived by the normal individual. This sense is naturally very acute, and the physician should know by experience how acute, before attempting to demonstrate its blunting as a sign of disease.

16. Ataxia. It may always be found by careful examination before the patient is aware of its presence.

17. Persistence of painful impressions, especially on the legs. For instance, a quick pin prick or pinch is perceived as a long-stinging or burning sensation. Author is not sure that this symptom should not be placed higher on the list, as it is rather frequent—more frequent than delayed sensation—and very characteristic.

18. Muscular hypotonus—that is, muscles are unnaturally lax and flaccid. This may be shown by “doubling up” the patient, when it is frequently found that he can be flexed without inconvenience, until the face is almost between the legs. The muscles, too, are insensible to pressure.

**INFECTIVE SINUS THROMBOSIS—DETERMINING FACTORS ON ITS SYMPTOMATOLOGY AND DIAGNOSIS.**—Whiting (*Jour. Amer. Med. Assn.*, Oct. 28, '99) says that the honor of first suggesting the feasibility of opening and cleansing the lateral sinus from disintegrated purulent thrombi, and of ligating the internal jugular as a prophylactic measure against the dissemination of infective particles, belongs to Zaufal, as does also the distinction of being the first operator to undertake the removal of such an accumulation, which he, four years later (1884), did.

It is, however, with the symptomatology and diagnosis of sinus thrombosis that this paper chiefly concerns itself.

The course of sigmoid sinus thrombosis may be conveniently designated for the purpose of clinical classification as comprising three stages, characterized by local and systemic manifestations. The anatomic appearances of the sinus wall, the pathologic changes in the clot, and the signs of circulatory obstruction may be demonstrated as local factors, while rapid and excessive fluctuations of temperature, frequently repeated rigors, peripheral or central metastases, etc., embrace the essential systemic symptoms.

The local and systemic conditions enumerated below constitute the various stages :

**First stage.** The presence of a thrombus, parietal or complete, chiefly composed of fibrin, red blood cells, exfoliated endothelium, leukocytes, and homogeneous protoplasmic cells, not having undergone disintegration and accompanied by slight or moderate pyrexia, rigors being usually insignificant or absent.

**Second stage.** The presence of thrombus, parietal or complete, which has undergone disintegration with resulting systemic absorption, characterized by frequent rigors and pronounced septicopyemic fluctuations of temperature.

**Third stage.** The presence of a thrombus, parietal or complete, which had undergone disintegration with systemic absorption, accompanied by rigors, rapid and great fluctuations of temperature, and central or peripheral embolic metastases, terminating usually in septic pneumonia, enteritis, or meningitis.

When a patient suffering with purulent otorrhea complains of severe hemicrania in connection with sudden increase or recent diminution of discharge, and simultaneously presents a degree of systemic disturbance not conformable with a tympanic or mastoid

inflammation, we should be apprehensive of some form of infective intracranial invasion, which suspicion the subsequent appearance of one or more chills with high temperature and undue exhaustion should convert into positive conviction. With the accession now of repeated chills of varying degrees of intensity, from a sensation of chilliness only to a severe and protracted rigor, associated with rapid and excessive fluctuations of temperature, profuse and colliquative perspiration, rapid pulse and respiration and great prostration, there is depicted so faithful a portrayal of the salient features of infective sinus thrombosis that the existence of almost any of the local signs, if at all pronounced, would be accepted as absolute confirmation by even the most sceptical and exacting medical attendants. The appearance of the local symptoms may be anticipated in their chronologic order, as follows: tenderness of the superior portion of the posterior cervical triangle, occipital edema (Griesinger), neuroretinitis, tenderness along the course of the internal jugular vein, most marked and earliest elicited close beneath the angle of the jaw. Edema of eyelids (Sterling), turgescence of the external jugular vein of the opposite side on pressure (Gerhardt), and lastly, a cord-like delineation of the internal jugular of the corresponding side due to purulent phlebitis extending into the neck.

One or several of the foregoing manifestations will be recognizable to a reasonably alert observer, and will supply the requisite corroborating testimony.

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**CONSTIPATION IN CHILDREN.**—H. M. McClanahan (*Jour. Amer. Med. Assn.*, Oct. 14, '99) says the causes of constipation in infants are entirely different from those that pertain to children and adults. Want of tone in the lower bowel, due to weakness of the muscular fiber, is probably a frequent predisposing cause, but seldom is the whole cause. The real causes may be grouped under two heads: (1) the quality, quantity and method of feeding; (2) the anatomic condition of the colon.

The most frequent cause of the first group is deficiency of fat; the next in frequency is excess of casein. Bottle-fed babies more often suffer from constipation than the others. The anatomic causes are excessive length and tortuosity of the colon, and lack of muscular tone.

In the treatment the cause is of the greatest importance; increase of the fat and diminution of the casein is necessary. In bottle-fed babies this is easily done; in the breast-fed proper attention to the diet of the mother may help. The character of the stools should be noted; if light colored and dry, the casein is to be decreased, and the milk peptonized. The addition of malt extract may be of benefit. Podophyllin, in doses of  $\frac{1}{40}$  to  $\frac{1}{20}$  of a grain, dissolved in alcohol, is preferred by the author. When the discharges are coated with mucus, saturated solution of sodium phosphate is recommended. For the second class of cases, digital examination of the rectum is not only of diagnostic, but of decided therapeutic value. A lisle thread catheter, perforating a cork, in which it slides, is preferred to the soft catheter; it may be introduced two inches, with cork against the rectum, and, after the current is turned on, carefully pushed on through the cork as far as may be needed; this will unfold the bowel. Cases of this kind must be continuously treated for several months, until the tone of the colon is improved.

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**ACUTE FRONTAL SINUSITIS.**—Swain (*Medicine*, Nov. '99) says that this trouble is increasing in frequency on account of the outbreaks of influenza. The frontal sinuses are probably always congested during a cold, and become infected usually on account of some anatomical peculiarity which permits or favors the entrance and confinement of the discharges to the sinuses. The symptoms are as follow:

A patient, notwithstanding he feels badly, thinks that for such a trifle as a cold in the head he will not consult the family physician. He retires with his nose feeling stopped and with greater pressure in his head than he has ever had before. Either then or in the night he suddenly feels an aching, perhaps first in the eye of the side affected. If accustomed to ocular headaches, he thinks that this is the trouble. He is frequently awakened in the night by the pain in the head, and before morning is conscious not only that his head aches, but that the forehead over the eye is aching harder than the rest, and is tender to pressure. By morning, or during the day, he frequently finds that the portion which aches hardest and is most tender is also a trifle swollen, reddened, and hotter than the other side. During the night he has been conscious that he was blowing more mucus from the nostril of the affected

side, and that it is completely stopped. During the forenoon he is unable to work, and the slightest jar, stooping, or, if he has a cough, clearing of the throat, causes severe pain in the forehead. He can not use his eyes, because of the marked watering, increased by use. Near work causes his head to ache harder. The discharge meanwhile has been increasing until along about 10 o'clock, when it reaches a maximum. Between now and afternoon, slowly or suddenly, there is a marked decrease of the pain, preceded by a flow of a large quantity of thin pus or muco-pus, frequently colored with blood when the let-up has been sudden. With the subsidence of the excruciating headache the patient feels easier every way, and by late afternoon is commonly quite comfortable. He can even read a little, and slight jars do not disturb him. In fact he feels so much better that he thinks the worst is over. He still has a cold in the head, feels feverish, and the affected side discharges freely. During the evening his confidence in his progress is somewhat shaken by occasional reminders, and before morning or on rising, the same grinding headache is there, with even more vehemence than on the previous day. His experience is now so severe that he seeks advice. If not, by afternoon he again has some relief, and sometimes without medical aid may go through several days of less and less aching, until the attack subsides, becoming soon but a disagreeable memory. Other cases seem to continue day after day with such agony that they are compelled to seek relief. Many unpleasant sequelæ of the acute trouble are to be found in neglected cases. The condition may become chronic, or the outlet may close up and alarming pressure symptoms develop.

For treatment he advises a purge, local heat, frequent snuffing of a hot saline solution up the nose, and the application of cocain and suprarenal extract to reduce the swelling at the outlet of the sinus into the nose. Rarely in acute cases, but oftener in chronic ones, an external opening must be made. After an attack the nose should be put in as near normal condition as possible (removal of polypi) to prevent a recurrence.

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THE DETECTION OF THE MORPHIN HABIT.—The *Atlanta Journal-Record of Medicine* for October cites from the *Medical & Surgical Bulletin* of uncertain date the following method of detecting morphin in the urine of suspected subjects of the morphin habit:



"Collect about twenty ounces of urine from the suspected individual. If it has not an acid reaction, acidulate with dilute hydrochloric acid until blue litmus is reddened by it. Concentrate to about three ounces and let it stand in a cool place for twelve hours, then filter. To the filtrate add sufficient sodium carbonate to render it alkaline; let it stand for twelve hours, filter and collect the precipitate, and wash this with distilled water made slightly alkaline with sodium carbonate, and dry. Digest the dried precipitate with pure alcohol at a gentle heat, and filter. Evaporate the filtrate to dryness, dissolve the residue with dilute sulphuric acid, and test for morphin by the iodic-acid test, or other well-known tests. By this method morphin can be obtained, says the author (sic), from persons taking but very minute amounts of the drug."—*N. Y. Med. Jour.*, Nov. 11, '99.

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## BOOK REVIEWS.

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**Any medical book can be obtained through the Lancet at publisher's prices, postage free. Terms cash. The usual discounts are allowed.**

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**The Nervous System and its Constituent Neurones.** Designed for the use of Practitioners of Medicine and Physiology. By Lewellyn F. Barker, M.B., Tor., Associate Professor of Anatomy in the Johns Hopkins University, and Assistant Resident Pathologist to the Johns Hopkins Hospital, with two colored plates and 676 illustrations in the text. New York: D. Appleton & Co., 1899.

The author is no stranger to the American medical reader. His series of articles in the *New York Medical Journal*, which formed the nucleus to this work, are known to most readers of medicine. This is the first attempt to put together in one book an embodiment of the newer histology of the nervous system, and its application in the explanation of the nervous system, its structures and functions. To do justice to it in a short review is entirely out of the question. The author's application of the term "neuron" is to the nerve unit in its widest sense, including the whole central cell and all its processes. Considering the many epoch-making discoveries in the histology and embryology of the nervous system, largely due to the introduction of original technique by Weigert, Golgi, Nissl, Santiago, Ramon y Cajal, and others, it is quite a monumental labor to gather all these frayed threads and weave them together into an enduring fabric. Such is the work of our author. It may be urged that a work of this kind has little real value to the every-day practitioner. To this we would answer that some reference to an up-to-date book is wanted daily by the large contingent of doctors who want real information in the domain of cellular (instead of generic or typographic) neural anatomy and are willing to go to the trouble to get it. It may be that, later on, the essentials may be gleaned out for special reference, but it is difficult to see how it can be of value shorn of its completeness. To the neurologist and teacher the work is a long-sought necessity. The publishers have seemingly spared nothing to make their part worthy of the text.

**A Practical Treatise on Materia Medica and Therapeutics.** By Roberts Bartholow, M.A., M.D., LL.D., Professor Emeritus of Materia Medica, Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia; formerly Professor of Materia Medica and Therapeutics and of the Practice of Medicine in the Medical College of Ohio; Fellow of the College of Physicians of Philadelphia, etc., etc. Tenth edition, revised and enlarged. New York: D. Appleton & Co., 1899. Price, cloth, \$5; sheep, \$6.

The many editions of this work are absolute evidence of its high standing and general use as a textbook. Schema, two parts. Part I, Modes in Which Medicines are Introduced into the Organism. Part II, The Action and Uses of Remedial Agents. The book comprises 866 pages, and is undoubtedly one of the most complete textbooks the writer has ever seen. The author has added to this edition a description of the newer remedies which, though not official, are much used, and this feature adds greatly to the value of the book. The section on prescription writing omits any mention of incompatibles, and does not make a strong enough plea for the more general use of the metric system. The sections on Aliments, Alimentation in Disease, and Hydrotherapy are very good. We commend the book very highly for its completeness, arrangement, and the effort of the author to make it thoroughly up-to-date.

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**An Atlas of the Bacteria Pathogenic in Man, with Descriptions of Their Morphology and Their Modes of Microscopic Examination.** By Samuel G. Shattock, F.R.C.S., Joint Lecturer on Pathology and Bacteriology, St. Thomas Medical School, London, etc. With an introductory chapter on "Bacteriology" by W. Wayne Babcock, M.D. etc. Sixteen full-page colored plates. E. B. Treat & Co., New York. Price, \$1.

The most useful part of this little book is the technique given opposite the colored plates. The illustrations, on the whole, answer the purpose. The chief danger to the student is that too much importance may be attached to the depicted morphology, which, being schematic, might have been better in some instances. Some of the artistic skill wasted upon the red corpuscles on plate XVIII would have rescued the tubercle bacilli in plate XXX from the appearance of streptococci. The same bacilli on plate XXI resemble those of glanders. The diplococcus pneumoniae does not show the lancet shape from which it derives one of its names, and it is not clear why the saccaromyces albicans should be the only fungus worthy of representation. The degree of magnification is nowhere indicated. The typography and the proof reading are not up to the standard. As stated above, the text renders the book quite useful to the laboratory student. Some well-known pathogenic bacteria are not mentioned.

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**Saunders' Question Compend No. 4.** Essentials of Medical Chemistry, Organic and Inorganic. Containing also Questions of Medical Physics, Chemical Philosophy, Analytical Processes, Toxicology, etc. Prepared especially for Students of Medicine. By Lawrence Wolff, M.D., Demonstrator of Chemistry, Jefferson Medical College; Physician to the German Hospital of Philadelphia; Member of the German Chemical Society, of the Philadelphia College of Pharmacy, etc. Fifth edition, thoroughly revised. By Smith Ely Jelliffe, M.D., PH.D., Professor of Pharmacognosy, College of Pharmacy of the City of New York; Clinical Assistant, Department of Neurology, Columbia University, New York. Price, \$1 net. Philadelphia: W. B. Saunders, 1899.

"Quiz Compend" have come to stay, and while we regard them not as a thing to be desired, and in the form of question and answer possessing many defects and few merits, we must say that the one under consideration is accurate, and seems to cover

the ground in a comprehensive manner. It has reached its fifth edition, which fact speaks for itself. If one must use a quiz compend, we do not think a better one on chemistry can be found than this.

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**Saunders' Question Compend No. 8.** Essentials of Anatomy, Including the Anatomy of the Viscera. Arranged in the form of questions and answers. Prepared especially for Students of Medicine. By Chas. B. Nancrede, M.D., Professor of Surgery and of Clinical Surgery in the University of Michigan; Emeritus Professor of General and Orthopedic Surgery, Philadelphia Polyclinic; Senior Vice-President of the American Surgical Association; Corresponding Member of the Royal Academy of Medicine, Rome, Italy; Member of the American Academy of Medicine, etc. Sixth edition, thoroughly revised. By Fred. J. Brockway, M.D., Assistant Demonstrator of Anatomy, Columbia University, New York. Price, \$1 net. Philadelphia: W. B. Saunders, 1899.

In this book the few questions and the exhaustive answers reduce the disadvantages of the question and answer form to a minimum. The illustrations are numerous and unusually good, being taken mostly from Gray. The descriptions are as good as is compatible with brevity, and for a pocket companion we do not doubt that it will serve the student a good turn. We hardly think the practitioner wants his information so condensed. This compend is in its sixth edition.

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**Saunders' Question Compend No. 11.** Essentials of Disease of the Skin, Including the Syphilodermata, arranged in the form of questions and answers. Prepared especially for Students of Medicine. By Henry W. Stelwagon, M.D., PH.D., Clinical Professor of Dermatology in the Jefferson Medical College; Physician to the Department for Skin Diseases, Howard Hospital; Dermatologist to the Philadelphia Hospital, etc. Fourth edition, thoroughly revised. Illustrated. Philadelphia: W. B. Saunders, 1899. Price, \$1.

This volume comprises 276 pages of questions, answers and illustrations. It is very complete, and while only intended for students will answer admirably as a ready reference book for the practitioner. The diseases of the skin are arranged under the following classification: Disorders of the Glands, Inflammations, Hemorrhages, Hypertrophies, Atrophies, New Growths, Neuroses, Parasitic Affections. We wish specially to commend the illustrations, which would do credit to a much larger and more expensive work on skin diseases.

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## BOOKS AND PAMPHLETS RECEIVED.

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*Lectures Upon the Principles of Surgery, Delivered at the University of Michigan.* By Chas. B. Nancrede, A.M., M.D., LL.D., Professor of Surgery and of Clinical Surgery; Emeritus Professor of General and Orthopedic Surgery, Philadelphia Polyclinic; Senior Vice-President of the American Surgical Association; Corresponding Member of the Royal Academy of Medicine of Rome; Member of the American Academy of Medicine; Late Major and Chief Surgeon U. S. V., etc. With an Appendix Containing a Résumé of the

Principal Views held Concerning Inflammation, by Wm. A. Spitzley, A.B., M.D., Senior Assistant in Surgery, University of Michigan. Illustrated. Philadelphia: W. B. Saunders, 1899.

*An American Textbook of Surgery, for Practitioners and Students.* By Phineas S. Conner, M.D.; Wm. W. Keen, M.D.; Roswell Park, M.D.; Nicholas Senn, M.D.; Lewis A. Stimson, M.D.; Frederic S. Dennis, M.D.; Charles B. Nancrede, M.D.; Lewis S. Pilcher, M.D.; Francis J. Shepherd, M.D.; J. Collins Warren, M.D., and J. William White, M.D. Edited by William W. Keen, M.D., LL.D., and J. William White, M.D., PH.D. Third edition, thoroughly revised. Philadelphia: W. B. Saunders. 1899.

*Saunders' Question Compend No. 3. Essentials of Anatomy, Including the Anatomy of the Viscera. Arranged in the Form of Questions and Answers. Prepared Especially for Students of Medicine.* By Chas. B. Nancrede, M.D., Professor of Surgery and of Clinical Surgery in the University of Michigan; Emeritus Professor of General and Orthopedic Surgery, Philadelphia Polyclinic; Senior Vice-President of the American Surgical Association; Corresponding Member of the Royal Academy of Medicine, Rome, Italy; Member of the American Academy of Medicine, etc. Sixth edition, thoroughly revised. By Fred. J. Brockway, M.D., Assistant Demonstrator of Anatomy, Columbia University, New York, N. Y. Philadelphia: W. B. Saunders, 1899.

*Essentials of Physical Diagnosis of the Thorax.* By Arthur M. Corwin, A.M., M.D., Instructor of Physical Diagnosis in Rush Medical College; Attending Physician to the Central Free Dispensary, Department of Rhinology, Laryngology, and Diseases of the Chest. Third edition, revised and enlarged. Philadelphia: W. B. Saunders, 1899.

*A Textbook of Embryology.* For Students of Medicine. By Jno. Clement Heisler, M.D., Professor of Anatomy in the Medico-Chirurgical College, Philadelphia. With 190 illustrations, 26 of them in colors. Philadelphia: W. B. Saunders, 1899.

*Symposium on the Pathology of the Diseases of the Cardio-Vascular System—The Blood in Diseases of the Cardio-Vascular System.* By Alfred Stengel, M.D. (Reprinted from the Proceedings of the Pathological Society of Philadelphia.)

*Medical Education.* By Charles W. Burr, M.D., of Philadelphia.  
(Reprinted from *Philadelphia Medical Journal*, October 21, 1899.)

*The Surgical Treatment of Uterine Fibroids.* By H. A. Royster,  
A.D., M.D., Raleigh, N. C.

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## NEWS AND NOTES.

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DR. HENRY H. MUDD, of St. Louis, is dead.

DR. BATTLE MALONE has returned from a post graduate course in New York.

DR. W. L. ESTES AND WIFE, of South Bethlehem, Pa., were in the city during November.

AN ordinance making vaccination compulsory has been introduced into the City Council.

SURGEON-GENERAL STERNBERG has recommended the establishment of an army nurse corps as a permanent feature of the service. There are now 230 nurses in the service.

DR. H. S. WOLFF has completed his term as resident physician at the City Hospital and moved back to his former office with Dr. Posert in the Southern Express Building.

THE Southern Surgical and Gynecological Association will meet in New Orleans on Dec. 5, 6 and 7. There are forty-three papers on the program and a very interesting meeting is expected. The St. Charles Hotel will be the headquarters.

TWO CASES of bubonic plague are reported at the quarantine station in New York. The patients are the captain and cook of the *J. H. Taylor*, from Santos, Brazil, which arrived at quarantine on Nov. 18. The health officials are confident of their ability to confine the disease and thoroughly disinfect the vessel and cargo.

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gravity setting. We find many ways in which skim-milk is being used profitably, and that for some purposes it is as nutritive and useful as the whole-milk itself. This is mainly due to its freshness and sweetness in centrifugal separation, since in gravity setting the bacterial growth in skim-milk develops rapidly and the milk sugar, which is an extremely nutritious ingredient in its natural state, changes into an acid which is harmful rather than beneficial to both the animal and human stomach. While the purpose of its distribution is no doubt an advertising one, in a considerable degree, there is much that is commendable in the little book, and we think it bears out the introductory statement that it is dedicated to every owner of a cow in the hope that it may afford some beneficial hint or suggestion to all who may take the trouble to look over its pages.

Dr. William F. Kier, of St. Louis, one of the most active and successful general practitioners in the whole country, has used the following prescription with most satisfactory results in the treatment of catarrhal influenza so prevalent during the fall, winter and spring months :

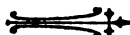
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FELIX PAQUIN, Ph. B.,

Chemist and Bacteriologist of the Board of Health.  
Member of the Association of Official Agricultural Chemists.

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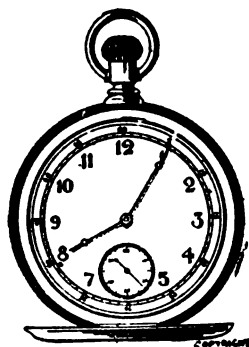
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**VOL. IV**

**JANUARY, 1900**

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**EDITED BY**

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**M. B. HERMAN, M.D.**

**W. W. TAYLOR, M.D.**

**WM. KRAUSS, M.D.**

**J. M. MAURY, M.D.**

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# THE MEMPHIS LANCET.

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VOLUME IV.

JANUARY, 1900.

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No. 1

## ORIGINAL ARTICLES.

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### REPORT OF FOUR MONTHS' SERVICE IN INTERNAL MEDICINE AT ST. JOSEPH'S HOSPITAL, MEMPHIS.\*

BY WM. KRAUSS, M.D.

Pathologist, and one of the Visiting Physicians.

This service extended from July 1 to November 1, of this year. The beds actually at my disposal were 22, but there was a potential capacity of 32 beds by encroaching upon the surgical ward and some private rooms when not otherwise occupied. These beds were always full and many patients had to be turned away owing to lack of room. This being the case, experimental work could not be undertaken, as it was imperative to work rapidly so as to give as many patients a chance to get treatment as possible.

Sixteen patients were received from the preceding staff member, Dr. S. E. Rice, while 22 remained at the close of my service; all of these are included in my table, which foots up to 354 patients, which with an average daily residence of 27, would make the average term of each patient 9½ days. One patient remained nine weeks, many remained several weeks, and by actual count the majority of the malarial cases remained five days, double tertian seven, post-malarial four, and estivo-autumnal ten days, the longest being six weeks.

There were no female patients or children in this service.

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\*Read before Tri-State Med. Assn. of Miss., Ark. and Tenn., Memphis, Nov. 14, 1899

## 2 REPORT OF FOUR MONTHS' HOSPITAL SERVICE.

The following is the list of diseases and number of cases:

DISEASE	No. Cases	Cured	Improved	Died	Remain- ing
Acetanilid poisoning, chronic .....	1	1	.....	.....	.....
Alcoholism, acute .....	1	1	.....	.....	.....
Aneurism, subclavian .....	1	.....	1	.....	.....
Anemia .....	1	1	.....	.....	.....
Bronchitis .....	3	3	.....	.....	.....
Carbuncle .....	2	2	.....	.....	.....
Cardiac asthenia .....	1	1	.....	.....	.....
disease, valvular .....	2	.....	2	.....	.....
Cirrhosis, liver .....	1	.....	1	.....	.....
Constipation .....	2	2	.....	.....	.....
Cystitis, acute .....	2	2	.....	.....	.....
Diarrhea, acute and chronic .....	10	9	.....	.....	1
Dysentery, acute and chronic .....	12	5	3	2	2
Disseminated insular sclerosis .....	1	.....	1	.....	.....
Encephalitis, alcoholic .....	1	.....	.....	1	.....
Fever, malarial .....	239	221	7	1	10
thermic .....	5	5	.....	.....	.....
typhoid .....	4	2	.....	.....	2
Gastritis, acute .....	2	2	.....	.....	.....
chronic .....	3	3	.....	.....	.....
Herpes cruralis .....	1	1	.....	.....	.....
Heat prostration .....	2	2	.....	.....	.....
Hematuria, renal .....	1	1	.....	.....	.....
Hemorrhage, intestinal, non-febrile .....	1	.....	.....	1	.....
Hepatitis, chronic .....	1	.....	1	.....	.....
Indigestion, acute .....	2	2	.....	.....	.....
Insolation .....	2	1	.....	.....	1
Lead poisoning, chronic .....	2	1	.....	.....	1
Meningitis, acute febrile .....	1	.....	.....	1	.....
chronic, spinal .....	1	.....	1	.....	.....
Morphin habit .....	4	.....	3	1	.....
and cocain .....	1	.....	1	.....	.....
Neuritis, multiple .....	1	.....	1	.....	.....
Nephritis, chronic .....	3	.....	.....	1	2
Pneumonia, chronic .....	2	.....	.....	.....	2
Ptyalism .....	3	3	.....	.....	.....
Rheumatism, acute articular .....	4	3	.....	.....	1
chronic .....	3	2	.....	.....	1
muscular .....	5	5	.....	.....	.....
syphilitic .....	3	3	.....	.....	.....
sciatic .....	2	2	.....	.....	.....
lumbago .....	1	1	.....	.....	.....
Syphilis, secondary .....	1	1	.....	.....	.....
Tabes dorsalis .....	1	.....	1	.....	.....
Tuberculosis, pulmonary .....	9	.....	6	2	1
intestinal .....	1	.....	.....	1	.....
kidneys and bladder .....	1	.....	.....	1	.....
Ulcer, laryngeal (glanders) .....	1	.....	1	.....	.....
<b>Total .....</b>	<b>354</b>	<b>288</b>	<b>30</b>	<b>12</b>	<b>24</b>

The malarial cases classify as follows :

Unclassified .....	31	Estivo-autumnal.....	29
Intermittent .....	24	Hematuric .....	5
Tertian .....	51	Chronic .....	5
double.....	31	Splenitic, ....	14
Quartan .....	5	Post-malarial malaise.....	40
triple.....	1		
Acute pernicious .....	3	Total.....	239

The twelve deaths make a ratio to all cases treated of 3.38 per cent. Recapitulating these, we have :

Dysentery, chronic.....	2	Morphin habit.....	1
Encephalitis, alcoholic .....	1	Nephritis, chronic .....	1
Fever, malarial (hematuric).....	1	Tuberculosis, pulmonary .....	2
Hemorrhage, intestinal.....	1	intestinal.....	1
Meningitis, acute febrile .....	1	renal and cystic.....	1

The two fatal cases of dysentery were past middle life, with multiple ulcers. The case of alcoholic encephalitis was admitted in a comatose condition and died in 48 hours, failing to rally under energetic treatment. The one death from malaria of the 239 cases was a hematuric whom I had seen only once before he died; death took place in the congestive stage; an effort to get an autopsy proved futile.

The next death baffled me considerably; he was in the hospital about two days, and all efforts to stop the hematemesis and bloody stools failed; he was too ill to give an account of himself, and, after spending two hours over his autopsy, the only thing I could find was exsanguinated tissues; there was no aneurism, and no ruptured vessel could be found.

The case of meningitis was in the hospital six weeks and was fairly convalescent, when he suddenly failed, and all efforts on the part of the house physician to resuscitate him proved ineffectual; the autopsy showed complete absorption of the exudate in the cranial cavity, but the cord was surrounded with fluid throughout its extent; I believe lumbar puncture would have saved this man, but he was doing so well that such an interference did not appear warranted.

The next death, morphin habit, should have been entered as advanced sclerosis; he was an old man who had taken morphin many years, and no attempt to treat the morphinism was attempted; he died comatose.



#### 4 REPORT OF FOUR MONTHS' HOSPITAL SERVICE.

The next four simply came to the hospital to die, but the last one was of considerable interest, and with your indulgence I will report it briefly :

Case 909. Admitted July 6, 1899; was sick four months with pain in pelvis and lower extremities, with great weakness. Had frequent painful micturition, as often as every half hour; temperature on admission  $101^{\circ}\text{F.}$ , fluctuating until it reached normal; after a few days he developed a dysenteric trouble and was referred to the proctologist, Dr. Henning, who found no ulcer. On the 28th he was returned to my department. He had passed very little urine during the last 36 hours; diuretics increased it slightly, but a purulent discharge now came from the penis, the diarrhea became irregular in character and course, the pelvic pains were constant, patient was very apathetic and did not answer questions directly; there having been no urine saved, I requested the house physician to draw some for examination with a catheter, but none could be obtained. No more urine was voided but there was no uremia, whilst on the other hand, peritonitis supervened, from which he died August 3, 1899.

Considering that only a purulent, urinous-smelling fluid escaped for several days before death without symptoms of uremia, the case puzzled me considerably, and I was very much gratified to get an autopsy, from the notes of which I cull the following :

Lungs, liver and heart, pale but normal; omentum engorged; glands of pelvic peritoneum and mesentery enlarged and hard; cheesy centers were found in some. The bladder walls were thickened and contracted and there were four large ulcers, one of which had perforated, filling the pelvis with the purulent urinous fluid. This accounted for the anuria. The position of the ulcer precludes the possibility of the bladder having been perforated by the catheter. (Specimen passed for examination.)

The kidneys both showed subcapsular multiple abscesses and miliary tubercles; there was some interstitial nephritis; the pelves of the kidneys were nearly obliterated.

Two ulcers were found high up in the rectum with some stricture in consequence.

Anatomic diagnosis: Tuberculosis of the pelvis, bladder and kidneys.

I would like the indulgence of the Association until I sketch over a few of the fever cases. It will be noted that among all the 354 cases occurring during the season of greatest prevalence of



PLATE I.

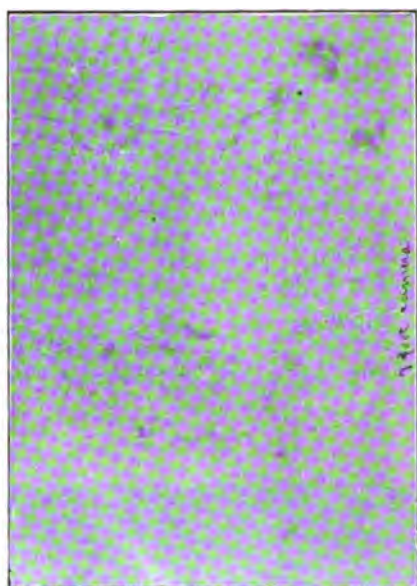


PLATE II.



PLATE III.

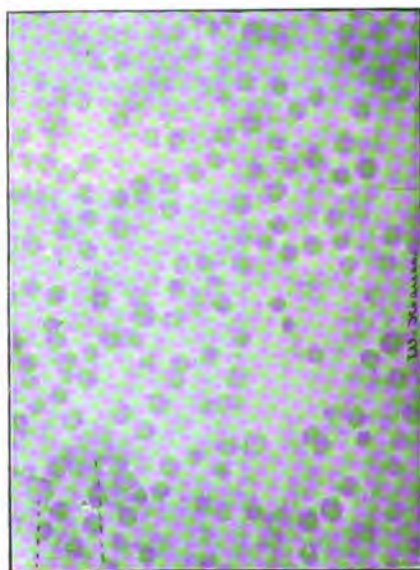


PLATE IV.

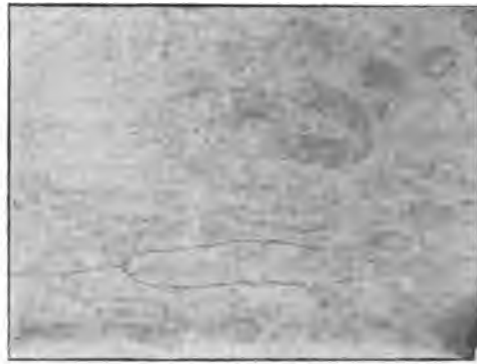


PLATE V.

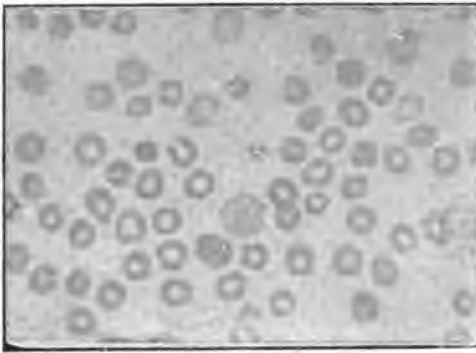


PLATE VI.

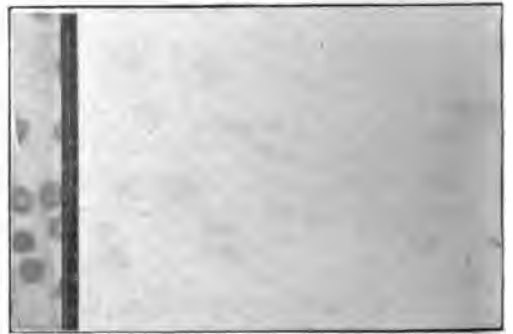


PLATE VII.

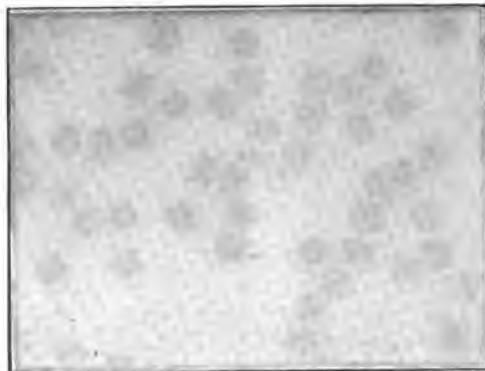


PLATE VIII.

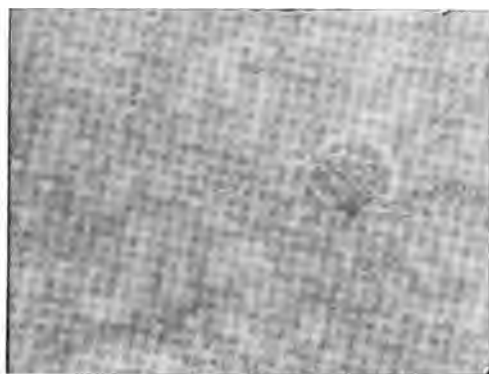


PLATE IX.



PLATE X.

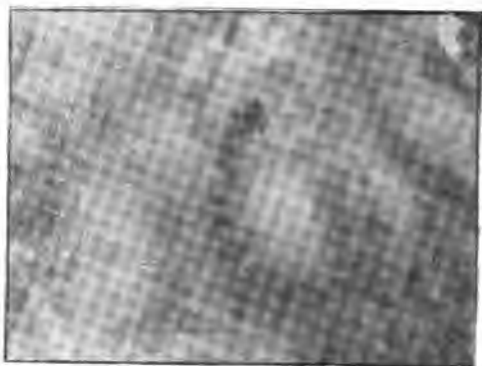
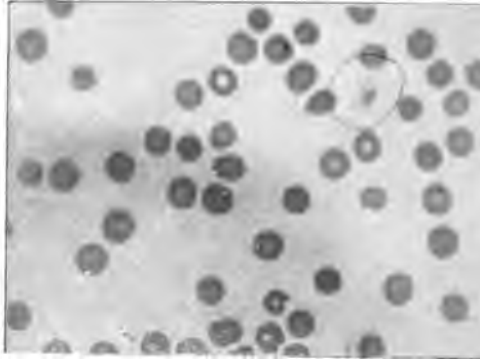


PLATE XI.



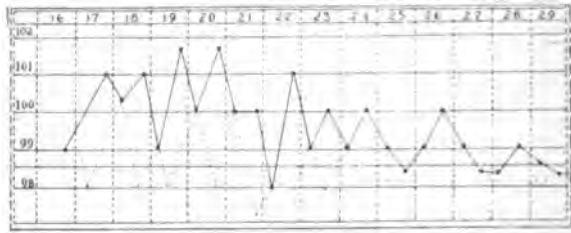
PLATE XII.



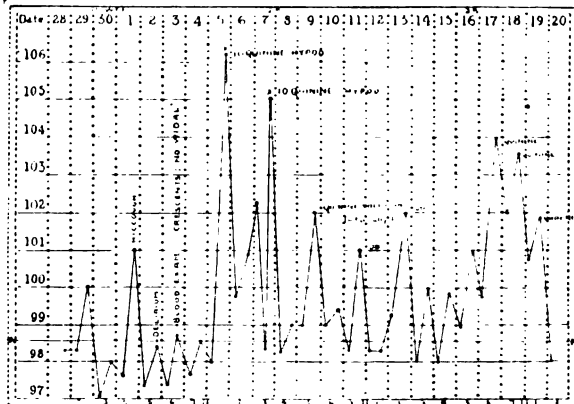
Remains of  
corpuscle

"Crescent"

PLATE XIII.



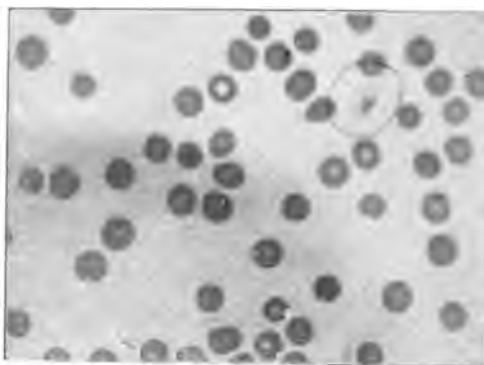
CASE 985.



CASE 1569.

The first of these is the fact that the system of the world is not a static one, but a dynamic one. It is a system of constant change, and it is this change that is the source of all progress. The second is the fact that the system of the world is not a uniform one, but a varied one. It is a system of many different parts, each of which has its own life and its own development. The third is the fact that the system of the world is not a closed one, but an open one. It is a system that is constantly receiving new influences from without, and it is this openness that is the source of all growth. The fourth is the fact that the system of the world is not a perfect one, but an imperfect one. It is a system that is constantly suffering from various defects, and it is this imperfection that is the source of all reform. The fifth is the fact that the system of the world is not a simple one, but a complex one. It is a system of many different forces, each of which is constantly interacting with the others, and it is this complexity that is the source of all interest. The sixth is the fact that the system of the world is not a predictable one, but an unpredictable one. It is a system that is constantly changing in ways that we cannot foresee, and it is this unpredictability that is the source of all excitement. The seventh is the fact that the system of the world is not a static one, but a dynamic one. It is a system of constant change, and it is this change that is the source of all progress. The eighth is the fact that the system of the world is not a uniform one, but a varied one. It is a system of many different parts, each of which has its own life and its own development. The ninth is the fact that the system of the world is not a closed one, but an open one. It is a system that is constantly receiving new influences from without, and it is this openness that is the source of all growth. The tenth is the fact that the system of the world is not a perfect one, but an imperfect one. It is a system that is constantly suffering from various defects, and it is this imperfection that is the source of all reform. The eleventh is the fact that the system of the world is not a simple one, but a complex one. It is a system of many different forces, each of which is constantly interacting with the others, and it is this complexity that is the source of all interest. The twelfth is the fact that the system of the world is not a predictable one, but an unpredictable one. It is a system that is constantly changing in ways that we cannot foresee, and it is this unpredictability that is the source of all excitement.

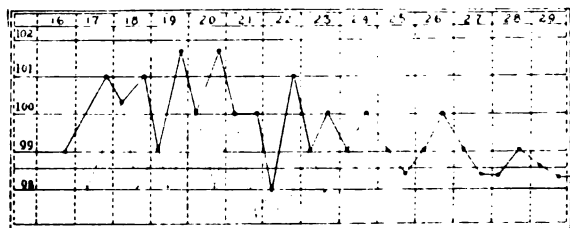
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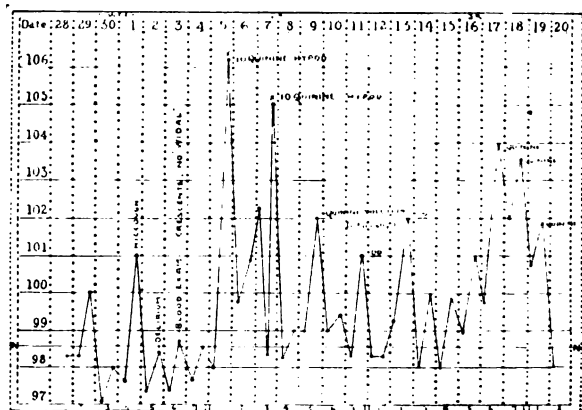
Remains of  
corpuscle

"Crescent"

PLATE XIII.



CASE 985.



CASE 1569.

typhoid fever there were only four cases of this fever; two of these have been discharged cured, the other two are able to be up. Among the cases simulating typhoid fever the one of No. 1569 is one of some interest. He was admitted September 28, 1899. Had been sick a week in Little Rock with dysentery, vomiting and daily chills; had abdominal tenderness, slight tympany, gurgling in the right iliac fossa, spleen enlarged and tender; tongue dry, red and hard, with fissures; low delirium at times. The accompanying temperature record is not reliable for the first five days, as he had chill late at night, after the temperature had been taken; he probably had had very high fever each night. His sister, who had means, living in another city, learned of his trouble, came to Memphis, removed him to a private room and called in another physician, who saw him with me on his first visit; he unreservedly pronounced it typhoid fever but agreed to let me examine his blood. The photo-micrograph of the spread and of the Widal reaction, together with the photograph of the Widal reaction with case No. 1723, one of my typhoid patients, forms a most interesting part of the history of this case. In passing these around I would request that all be passed together for comparison. Details that I will not relate are found recorded on the chart and margin of the photographs. Suffice it to say that he recovered under anti-malarial treatment. I forgot to mention that the other doctor retired from the case, after the second visit, on account of illness.

Another case of double estivo-autumnal malaria was of great interest to me. The accompanying temperature chart sufficiently shows the details. (Case No. 985.) Another case of what I may be pardoned for calling, with Dr. Henning, pseudo-typhoid, was under the charge of another physician for three weeks for supposed typhoid. Blood examination showed absence of Widal reaction, and estivo-autumnal organisms; the chart shows the effect of quinin given hypodermatically during the height of the fever on three successive days in the third week. (Case No. 1345.) There were several other cases of pseudo-typhoid with histories very similar, that did not give the Widal reaction, showed malarial organisms, and recovered under the quinin treatment. The diagnosis was made from the temperature chart in most of the malarial cases, blood examinations being made in doubtful cases only.

As a rule, where it could be done, the quinin was given during



## 6 REPORT OF FOUR MONTHS' HOSPITAL SERVICE.

the height of the paroxysm; when the temperature curve was irregular, it was given two grams a day, divided into three doses.

Under the head of post-malarial malaise I grouped a number of cases which were admitted with a history of malaria, but developed no further paroxysms. They were usually put upon a simple tonic.

Some of my hematuric cases were quite interesting, but time does not permit going into details, except to mention that one case recovered after going into delirium from uremia; complete suppression had not set in, but the urine had assumed the spring water clearness, with sp. gr. 1001. Morphin and apomorphin were given freely in spite of the prejudice against the former drug in hematuria; I believe nothing so tranquillizes the nervous system; I think the real cause of suppression is excessive purging in the face of the enormous increase in urine solids; precipitation then results, as shown in the photo-micrographs of kidney sections showing the loops of Henle enormously dilated and filled with blood debris.

In closing, I wish to thank Dr. Morrow, the house physician, for his assistance and the records quoted. All praise is due to the Sisters of the hospital for indulging my whims, overworked as they were with the largest summer clinic in the history of the hospital.

### Description of Plates and Charts.

Plate I. Widal test with case 1723. 1000 diam. reduced  $\frac{1}{4}$ ; dark areas are agglutinated bacilli; made with same culture, on same day, as case 1569; ten minutes, dilution 1:50.

Plate II. Widal test with case 1569; hanging drop over night, dilution 1:10; notice typhoid bacilli discrete.

Plate III. Liver from a case of malarial methemoglobinuria. Died Sept. 19, 1897, showing cloudy swelling and granular degeneration of the hepatic cells, especially near the central vein; pigmentation; marked round-cell infiltration of the interlobular tissue.

Plate IV. Blood from a case of malarial methemoglobinuria; congestive; first stage, showing methemoglobinuria and small intracellular plasmodia; dark, smutty background due to free hemoglobin.

Plate V. Kidney from case of malarial methemoglobinuria; died Sept. 19, 1897. Kidney, boundary of pyramid; showing chronic interstitial nephritis, a dilated loop of Henle (see diagram on margin), choked with blood debris; ink mark around dilated vas rectum.

Plate VI. Blood from a case of pernicious malaria; died at City Hospital; blood is from the liver, post-mortem; poikilocytosis; three eosinophiles are seen, one in center, two at one margin.

Plate VII. Blood from a case of malarial methemoglobinuria, stage of depression; almost complete decolorization of red cells; section of another spread on margin, showing that same time of exposure shows normal blood plainly.

Plate VIII. Blood spread tertian malaria, taken during pyrexia; diagram on margin shows where plasmodium is.

Plate IX. Kidney from case of malarial methemoglobinuria; died July 16, 1896; cortex; diagram on margin indicates pigmentation of tuft and round-cell infiltration above; general pigmentation and cloudy swelling.

Plate X. Same case, showing a Bellini tubule in pyramidal process, with rod-shaped pigment masses in one angle; highly magnified.

Plate XI. Another hematitic kidney, base of pyramid, showing intense hyperemia of tissue; vasa recta very much dilated; chronic fibrosis very apparent. Died July, 1896.

Plate XII. Same case, more highly magnified, showing choked tubules; descending limbs mostly empty; marked interstitial overgrowth.

Plate XIII. Blood spread from case 1569; diagram on margin indicates crescent, pale spots in some red cells are not plasmodia. This was the so-called typhoid.

#### History of Case 985.

Admitted July 16, 1899; Lumber boss, aged 35. Had been having chills for several weeks, tertian at first, becoming subcontinuous; had been treated in a river town, but always relapsed. When admitted he had been having daily fever for a week; was much emaciated, had a hacking cough, and believed he had consumption. His physician had advised a change of climate. After a two-hour temperature record he was injected with 5 milligrams of tuberculin without producing any reaction. Blood examination showed intracellular rings and small, hyaline intracellular buds. Quinin hydrobromate, 2 grams daily, had no effect; this was increased to 3 grams, given in four-hour intervals, which resulted in the partial extinction of one of the groups (see black curve—this does not show in the cut, but is the one appearing on the odd days). Warburg's tincture was then given until the fever definitely disappeared. The dotted lines represent the probable fall in temperature if the other group had not raised the temperature before it had time to fall. In tertian intermittent the paroxysm lasts only twelve hours, and in the case of a double infection the fever still has time to defervesce completely before the next paroxysm comes on. The estivo-autumnal paroxysm may last as long as forty-eight hours, hence this curve.

#### Chart of Case 1569.

The temperature of the first few days is not correct, as the highest fever was at night, and not at first recorded. Note the higher temperature on the odd days. This was entered as a case of irregular estivo-autumnal fever, simulating typhoid, complicated with dysentery.

210, 212 and 214 Randolph Building.

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NOTE.—The temperature chart of Case 1345 was inadvertently omitted. The annotations on Chart 1569 should read 1.0 quinin.

Plates III, V, VI, IX, X and XI, while not from this series of cases, were exhibited at the same time as "Photo-micrographs of Malarial Blood and Tissues," and serve to illustrate the pathology of some of the cases.

## THE MODERN TREATMENT OF FACE PRESENTATIONS.\*

BY GUSTAV KOLISCHER, M.D.

Professor of Gynecology and Obstetrics, Chicago Clinical School.

Face presentations, although not very frequent, are not so rare that it will not be necessary to bestow full attention upon them. As the early stages of face presentations are the most liable to be successfully treated by obstetrical interference, and we do not like to use an internal examination in obstetrical cases without being compelled to, it seems not to be amiss to devote a few words to the external examination.

In external examination we find the head at the pelvic aperture; the skull is elongated to one side; we encounter the greater resistance and the minor parts of the fetus in the same side of the uterus, the resistance being caused by the anterior part of the thorax; the heart sounds also are found at the same side; if the fetal back points to the left, one notices the heart sounds on the right maternal side backward; the fetal back being turned to the right, the heart sounds are heard on the left side and anterior. In the latter position the fetal heart beat can be palpated in favorable cases—that is, if the abdominal walls are very thin and the uterus flabby.

After it is ascertained in this way that an extreme position of deflexion is present, one immediately follows with the internal examination, as in face presentations it is of the greatest importance to secure complete knowledge of all the details. We must learn how far up the face is, in which way it presents itself, furthermore whether the skull is still movable; finally, the pelvimetry has to be carried out with the greatest precision. The skull being still high in the pelvis, one finds the forehead on one side, the mouth on the other side, in the center the root of the nose, on both sides of the latter the bulbi. In the second stage, the face entering the medium planum of the pelvis, the chin descends; the examining finger feels now on one side the anterior angle of the fontanella major, on the other side the point of the chin. The face having entered the

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\* Read before the Chicago Medical Society, November 8, 1899.

pelvic outlet, the chin is found beneath the symphysis, the forehead resting on the perineum. These findings correspond with the normal spontaneous decursus of face presentations. The face enters the pelvic introitus in a cross position; in further progressing the deflexion becomes increased *ad maximum*; finally the face descends in cross position to the pelvic floor. Rotation of the face, the chin being turned forward, takes place last, as the last preparatory motion before delivery.

As far as the fetus is concerned, the following irregularities are likely to occur: first, the face may place itself in the pelvic introitus with the chin backward; such a position excludes any further descensus of the head; or second, the chin fails to rotate forward, after the face has arrived at the pelvic floor in cross position. In the first case spontaneous delivery is impossible, and may be considered as an extremely rare occurrence.

Searching for the disadvantages of the face presentations, we find the following: The decursus of the labor is a protracted one even under favorable circumstances, which for itself is connected with danger to the mother; second, the head passes under unfavorable circumstances through the vulva, which endangers the integrity of the perineum; the death rate of the children is a high one during the labor, and even if delivered alive the proper nourishing is impaired for several days; the lips and the mouth usually by edema and hemorrhage swell up to such an extent that the babies are unable to suck and even to swallow.

The prognosis of face presentations becomes serious and directly unfavorable if complications previously have been present, or if they are added during the labor. To the complications of the first category belong pelvic contraction even of a slight degree, and constitutional diseases of the mother; to the complications of the second group belong great distension of the lower uterine segment, beginning fetal asphyxia, and irregular mechanism.

Now the question arises, what could be accomplished in face presentations by the obstetric art, in order to secure a more favorable and prompt delivery? This could be answered in this way: We can transform the face presentation entirely by changing the whole attitude of the fetus, that is, by version, or by changing the presentation of the skull, that is, by transleading it from a position of deflection to an occiput presentation; or we can transform an

unfavorable face presentation into a more favorable one by correcting the face presentation in this way, that a spontaneous delivery may take place, or an extraction by means of forceps may be easily performed.

In particular the technic of these different methods can be described as follows: There is nothing special to say about the version—it differs in no way from any other podalic version. So far as the transformation of the face presentations to occiput presentations is concerned, in earlier times already such attempts have been made and different rules have been brought forth; but all of them proved impractical and have been given up, as all these methods have been confined exclusively to influencing the fetal skull, without any regard to the trunk.

Schatz at first called attention to the point that, if we want to effectuate the transformation of a deflected position into a flexed position, the skull has to pass through a transient position in which the fetal axis is elongated; to this effect manipulations applied to the skull only are not sufficient—the main point is to dislocate the fetal trunk upward and sideward.

In order to understand the necessary manipulations the following points have to be contemplated: If a face presentation develops at the pelvic aperture, the fetal thorax wanders out of one side of the uterus into the opposite one; if we intend to reconstruct a position of flexion, the fetal trunk has to be induced to return over the same way in an opposite direction—consequently the fetal trunk has to be pushed upward to secure the necessary elongation of the fetal axis, and at the same time the fetal thorax has to be pressed into the other side of the uterus, in order to gain space for the flexion of the head.

Schatz advocated this whole transformation to be performed by external manipulations: one hand grasps shoulder and thorax and pushes both at first upward and toward the side to which the fetal back points; after the elongation of the fetal axis is achieved, the pressure is exerted toward the side of the back only; the other hand is placed on the breech, and this is pushed into the side which was occupied by the thorax. But like all the transformations performed by external manipulations only, this method also is a very difficult one and seems to be reserved for the specialist.

By combining Schatz' and Baudeloque's ideas Thorn recently has developed a method which seems apt to be used by the general practitioner. Thorn's method is performed as follows: The hand which corresponds with the fetal back is introduced into the cervix and the finger tips are placed on the occiput, the other hand is placed on the maternal abdomen and grasps the fetal shoulder from outside. While the external hand is pushing in an oblique direction the thorax from below upward and at the same time into the opposite side of the uterus, the internal hand draws the occiput downward.

Of course all these manipulations have to be done during the pauses of pains. The transformation once performed, there is no danger of a relapse into a deflexion; as to this, an elongation of the fetal axis would be necessary, which is impossible under the influence of the uterus.

In performing the operation the patient is placed on the side which corresponds with the fetal back; the patient remains in this position after the operation.

Usually one succeeds with this operation without any difficulty; only in rare cases, if the patients are very sensitive, it becomes necessary to resort to general anesthesia. One is very often surprised how soon after the correction is accomplished the spontaneous delivery, in occiput presentation, takes place.

The conditions for this correction are: The cervix should be permeable for at least four fingers; the membranes should be ruptured—if they are not, they are torn immediately before starting in with the operation; a slight fixation of the face does not render the transformation impossible; before trying to get on the occiput the face is gently pushed back.

In those cases in which the face has descended to the pelvic floor, and no further rotation of the chin takes place, it is wise to correct this position, as in a cross or oblique position a delivery of a face presentation is almost impossible. It is recommended for such cases, to apply the forceps in the oblique diameter and rotate the head by means of the forceps, after which the extraction may follow.

As to this I wish to say: In the first place, to apply the forceps in the oblique diameter in face presentations is always very difficult, very often impossible; second, the blades of the forceps are work-

## 12 TREATMENT OF FACE PRESENTATIONS.

ing at a point unfavorable for this purpose; third, there is always the danger of tearing the vagina and the cervix by the great power which can be exerted through the forceps. Therefore it is much more expedient, in such cases, to perform the correction by means of the hand. The flat hand is introduced over the face, the fingers grasp the chin and pull it under the symphysis; after this is done the forceps may be applied.

Concerning the indications the following may be said:

The old rule that in face presentations the expectant therapy is the best, will only hold good in quite favorable and uncomplicated cases. If we consider that the mortality of the children in face presentations is 12 per cent, after the largest statistics, and that in other presentations quite indifferent complications become very serious ones in face presentations, the rule seems to be justified to correct the face presentation in every case which even slightly shows a complication or something abnormal. If there is a pelvic contraction, even a very slight one, the version seems to be the operation of choice.

We should not wait until the face becomes fixed; a fixed face high up cannot be grasped with the forceps if the necessity of a speedy delivery arises.

An absolute indication for interference results if the face presents itself in the pelvic aperture with the chin backward—as in this position the head can, by no means, descend to the pelvic floor.

After the death of the child craniotomy is the most expedient operation. Symphysiotomy has to be performed in case the head of a living child is absolutely fixed in a contracted pelvis, if we want to live up to one of the first rules of the modern obstetrician; we should not sacrifice the unborn life.

92 State Street.

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## THE PHYSICIAN AS A FACTOR IN THE SPREAD OF CONTAGIOUS DISEASES.\*

BY F. S. RAYMOND, M.D.

MEMPHIS.

Within the past ten or fifteen years substantial advancement has been made in the direction of prevention of disease. Sanitation and prophylaxis, in their relation to the practice of medicine, have been given much prominence in our very best medical journals, and occupied the minds of some of the greatest thinkers of modern times. In 1882, or thereabouts, Koch gave to the world the result of his years of study of the cause of tuberculosis, which is, in fact, one of the most masterly demonstrations of modern medicine, and it is only since then, that so much has been said and written about the possible prevention of this great destroyer of mankind by the observance of the plainest rules of sanitation.

Prior to the year 1890 the percentage of deaths from diphtheria in large cities was frightful. About this time different investigators began to be interested in serum therapy, among them Behring, who soon afterward demonstrated the fact that the blood of an immunized animal, when injected into the blood of another animal, would convey immunity.

Today, no one of us would think of treating a case of diphtheria without antitoxin injection. Not only this, but we can immunize those not infected by the use of antitoxin.

Departments of health all over the country have given study and spent money in the investigation of the cause and mode of infection of our most common contagious diseases, and have formulated rules and regulations for the guidance of the profession with reference to isolation, quarantine and disinfection, and we have only to look at the array of facts resulting from such investigation to appreciate the great strides made in preventive medicine quite recently.

But notwithstanding all that has been demonstrated of the value and potency of sanitation, ordinary cleanliness, I may say,

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\* Read before Memphis Medical Society, November, 1899.



## 14      PHYSICIANS AS SPREADERS OF DISEASE.

the majority of busy doctors pay very little attention to prevention as far as guarding against infection of the healthy, often visiting infected patients or places.

Boards of health everywhere, and very properly too, forbid children from families where scarlet fever, measles, diphtheria, r theln, smallpox, or whoopingcough exist, from attending day school, Sunday school, and so on; but no attention is paid to the doctor, who goes and comes as often as he pleases, without any preparation beforehand or the least effort at disinfection afterward, often going next door, or across the street, to make other professional calls.

Now every one knows that the specific poison, or cause of contagion, in scarlet fever, smallpox, measles, rubella and whoopingcough, is not known. In none of these diseases is the virus given off in a definite form. We do know that the infection from some of them at least is conveyed by dogs, cats, books, toys, and even a bouquet of sweet flowers.

Then how can the most fastidious or scrupulously clean doctor say he does not, or cannot, convey infection, unless more preparation is made before, and some sort of disinfection is done after, seeing such diseases.

Of course we know that authorities say that the carrying of contagion in clothes, worn by a doctor, through the air, is rare. Holt says upon this subject: "The transmission of the disease through a third party is not frequent, but numerous instances are on record. The persons most likely to carry it are the doctor and the nurse."

Holt also says upon the subject of diphtheria, when speaking of persons from infected residences: "They may, while healthy themselves, be the carriers of the disease." Surgeon H. R. Carter, of the U. S. M. H. S., who is perhaps as good an authority as we have on yellow fever infection, says: "Ordinary wearing apparel, worn through the air and sun for any considerable distance, is freed from yellow fever." Mark you, he says "ordinary" clothes, also for any "considerable distance." Now, if we knew what Carter means by "ordinary" in this connection, and how far a "considerable distance" is, when being exposed to yellow fever, the proposition would have more weight. Dr. Carter, however, admits that he does not know the possibilities of infection from yellow fever,

and the same may be said of all other contagious and infectious diseases.

Every one must be familiar with the history of outbreaks of smallpox, yellow fever and diphtheria in places where the most careful investigation by the most astute experts has failed to explain the source of infection. I have seen in the country, five miles from even a railroad, diphtheria of the severest form go through a family of children who were never out of the neighborhood in their lives, and the most fertile imagination could not account for the infection—which, to my mind, is very conclusive evidence that we really do not know the possibilities of infection in any of the diseases in question, and forces me to the conclusion that our boards of health should make rules compelling all physicians to protect their bodies by wearing a rubber, or other closely-fitting coat, while in an infected house, and disinfect their hands, face, hair, and beard before seeing any other person, especially a sick person. No physician in Memphis is so busy that he could not find time for the observance of such a rule, if such were made compulsory, and I doubt if any doctor would consider his rights infringed upon or abridged thereby.

As physicians, we often receive the benedictions of thoughtful parents for carrying their little ones safely through one of those dreaded contagious diseases, and although the doctor is entitled to all the thanks and credit he may receive, how much more honor and gratitude is the physician entitled to who prevents disease in the households of his friends and patrons?

I do not believe any physician has the moral right to jeopardize the health or lives of his patrons or others, by failing to observe such simple measures as are herein suggested.

I am heartily in favor of the adoption and enforcement of even more rigid rules, both by city and county boards of health, bearing directly upon the spread of contagious diseases.

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## SOME REMARKS ON DISEASES OF THE EYE, EAR, NOSE AND THROAT IN THE NEGRO.\*

BY E. C. ELLETT, M.D.

MEMPHIS.

Ophthalmic and Aural Surgeon to St. Joseph's Hospital, the City Hospital, the Lucy Brinkley Hospital, the Children's Home, the Shelby County Poor and Insane Asylum, and the Leath Orphan Asylum.

The influence of racial peculiarities on types and frequency of disease is well recognized, and our facilities for observation of disease in the negro is such an everyday matter that I believe we are prone to overlook some interesting and important facts, and not be aware, for instance, that certain diseases are rare in, or peculiar to him, unless our attention is directly called to the fact. By "negro" in this paper I am compelled to include all shades of the colored man, since the pure African is rare among us, and in some instances the original negro blood has been so attenuated by dilution with that of the white, that it almost takes an expert to properly classify a given sample. What I have to say on this subject will pertain almost entirely to the relative frequency of certain diseases, and the negro's inexplicable immunity from others.

I regret, for the sake of accuracy, that I am unable to label this "A Statistical Study." My records are, however, almost altogether those of my private practice, those of my hospital work being in a rather inaccessible form. The negro is such a bird of passage and such an unstable patient, that I believe most of us find it hardly worth while to keep a record of the average negro patient, unless the case be one of peculiar interest. What I have to say, then, will rather be in the way of impressions left by my work among them, and in many instances you will find that your knowledge of them as affected by general diseases will supply the gaps and explain some points in regard to which I have no explanation to offer.

As a preliminary to a detailed consideration of my topic, a few general propositions might be stated once for all, with which I believe all of you will agree:

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\* Read before the Tri-State Medical Association, November, 1899.

1. As regards the cephalic mucous membrane, the negro enjoys a singular immunity from catarrhal inflammations.

2. The negro has the latch-string of his domestic economy hung on the outside for the entrance of the bacillus of tuberculosis and the poison of syphilis.

3. The negro affords us ample opportunity for the study of the natural history of disease, uninfluenced by treatment.

#### The Eye.

Affections of the lids are not common. Marginal blepharitis, often dependent on errors of refraction, is, on that account, rare. Epithelioma is, I believe, unknown, though I have seen one case of rodent ulcer in a young mulatto. This case has been reported by Dr. Krauss and myself in the *Annals of Ophthalmology*.

*Lachrymal Affections* are relatively rare, for reasons that will be mentioned later.

*Affections of the Conjunctiva* in the negro present a few peculiarities. Acute catarrhal conjunctivitis (cold) is relatively very rare. Trachoma (granular lids) is almost unknown, though instances of it are seen. Phlyctenular or scrofulous conjunctivitis is the commonest disease of the conjunctiva with them, and is more prone to affect the part of the conjunctiva lying next to the cornea than it is in the white.

I have seen much less gonorrheal conjunctivitis, both in the adult and the infant, in the negro than in the white.

*Corneal Affections* probably constitute the majority of eye diseases in the negro. As a child he is very susceptible to phlyctenular or scrofulous keratitis, probably because his tissues are all easily affected by tubercular processes. Later in life corneal ulcers of all sorts and sizes and many atypical forms of interstitial inflammation of the cornea are seen. It must be a daily occurrence with all of you to see negroes with white corneal opacities, the result of former ulceration, and constituting his commonest cause of blindness. Neglected, these ulcers often perforate the cornea, impairing the sight to a greater or less degree. This prevalence of corneal affections in the negro has been observed by other Southern writers, notably, Ray, of Louisville, and is one of the points which I wish to emphasize.

## DISEASES OF NEGRO EYE, EAR, NOSE AND THROAT.

*The Uveal Tract*, the name given to the choroid, ciliary body and iris, rivals the cornea in supplying cases of eye disease in the negro. This is especially true of the iris, which bears the brunt of the effect of the syphilitic poison on the eye. While I cannot give figures bearing on the subject, I am convinced from my experience that plastic iritis, as a manifestation of secondary syphilis, is one of the commonest of eye diseases in the negro, and is frequently complicated with cyclitis. Simple cyclitis must be rare, and I do not recall a single case. Ray, of Louisville, has found gumma of the iris and ciliary body quite frequently, but I have not noticed it more frequently than in the white. The iritis being often neglected, frequently results in occlusion of the pupil by lymph and consequent blindness.

As a peculiarity of the eye of the negro, it might be mentioned that the excessive amount of pigment in the choroid makes the light reflex as seen by the ophthalmoscope rather dim, and the eye-ground itself is, in dark subjects, often almost slate-colored.

*The Retina* presents no peculiarity worthy of note. Retinal diseases are not common in any class of patients, and I think I have seen relatively as many affections of the retina in negroes as in whites. I recall one case of retinitis pigmentosa, two or three of albuminuric retinitis, and two or three of hemorrhagic retinitis (retinal apoplexy), but few others.

*The Crystalline Lens* is prone to undergo cataractous degeneration in the negro. I see and operate on very many more cataracts in the negro than in the white. This cannot be explained by the theory that cataract is brought on by eye strain and uncorrected errors of refraction, but is due, I think, to the fact that the negro works hard, is much exposed, often poorly fed and clad, and in general takes such poor care of himself that senile changes, such as cataract, are apt to develop in him early and with considerable frequency. Once started, I think cataracts ripen, i.e., the opacity involves the whole lens, with much greater rapidity than in the white subject. Soft cataracts in the young are relatively less common than in the white.

*The Optic Nerve* shows atrophy and retro-bulbar inflammation with a frequency which is probably to be explained by the wide prevalence of syphilis in the race. Idiopathic atrophy, i.e., independent of any recognized cause, is rather frequent, and is proba-

bly often due to a syphilitic infection of which we can get no history. I do not recall now a single typical case of toxic blindness, i.e., from quinin, alcohol, lead or tobacco.

*Primary Glaucoma* is rare in the negro. I have seen but two instances, one of double typical glaucoma in an elderly mulatto woman, the other acute glaucoma in a young negress. I have had, at different times, several cases of hemorrhagic retinitis under observation, but have not observed any of them pass into hemorrhagic glaucoma.

*Errors of Refraction* are not usually of much importance in the negro. He, as a rule, does not use his eyes enough to be troubled by the small amount of hyperopia and hyperopic astigmatism which he has doubtless acquired along with his admixture of white blood, while myopia is quite rare in them. I have seen, however, a few cases of a high malignant sort of myopia among them, one being in both eyes of an almost pure African, and a rather large number of similar cases affecting one eye. Few negroes, however, have applied to me for the correction of errors of refraction, or presenting any of the evidences of eye strain.

*Muscular Anomalies*, from the various forms of lack of balance in the eye muscles to positive squint, are very rare. In this observation I find support in the opinions of two well-known Southern eye surgeons, Kollock, of Charleston, and Bruns, of New Orleans. I am sure that I have never examined a single negro who was the subject of the ordinary sort of crossed eyes, though I remember to have seen two on the street who were apparently so affected. It is more than likely that these two were paralytic cases, since paralyses of the eye muscles, due to syphilis, are by no means rare. Indeed, they are very common, and yield gratifying results to large doses of the iodides.

*Blindness* in the negro can practically be classed under three heads:

1. Corneal opacities.
2. Neglected iritis.
3. Optic nerve degeneration.

The first and second are rather common. The former is not wholly preventable, while those from neglected iritis can be practically wholly prevented by proper treatment of the trouble in its acute stage.

## DISEASES OF NEGRO EYE, EAR, NOSE AND THROAT.

From what I have said a practical point in treatment may be deduced as follows :

In inflammatory eye affections of the negro, where a satisfactory diagnosis cannot be made, the local use of atropia, combined with the administration of mercury and iodide of potash, separately or in combination, will, in the majority of cases, yield a good result. The rarity of glaucoma makes it at least improbable that the atropia will produce any deleterious results.

### **Diseases of the Ear, Nose and Throat.**

Diseases of the ear, nose and throat have a close anatomical relation. Prior to any remarks on them in detail, I would repeat what I said before, that the negro enjoys a singular immunity from catarrhal diseases, acute or chronic, the only explanation for this that I can think of being that he is blessed with a roomy nose and naso-pharynx, and the space is so wide as not to be encroached on to a symptom-producing degree by an ordinary amount of thickening of the tissue. No less an authority than Lenox Browne has recently said that a roomy naso-pharynx predisposes to naso-pharyngeal disease, but this is certainly not true of the negro.

*Accessory Sinuses.* I recall now but two cases in negroes in which any of the so-called accessory sinuses were involved. One was a case of maxillary antral disease, and in the other the anterior ethmoidal cells were affected.

### **The Ear.**

Few cases of acute or chronic ear disease in the negro have come under my notice, and it is probably a common observation that deafness is much less frequent among them than among the whites. As a rule they are prone to neglect middle ear suppurations, thus yielding a relatively large number of mastoid cases.

My observations are, I must confess, less extensive in this department than in the eye. I not only do not cater to this practice, and rather discourage it, but am often, for obvious reasons, compelled to refuse to treat them. I have, however, probably examined, if not treated, my share.

### **The Nose and Throat.**

A few cases of hypertrophic rhinitis, and a tolerably large number of syphilitic cases, will include most of the cases of nose and throat disease that I have seen in the negro. I do not know that

tonsillitis is particularly rare, but I do not think that I have amputated the tonsils in more than two cases, and I have seen very few others who needed it.

*Adenoid Vegetations in the Naso-Pharynx do not Occur in the Negro.* I have watched this point very carefully, in connection with a collective investigation on the subject of adenoids which I have recently made, and I believe this statement is correct. The only corroboration of this that I can find is from Dr. Calhoun, of Atlanta. I do not know what the experience of my colleagues here is.

The infrequency of tonsillar hypertrophy and the probable non-existence of adenoids opens an interesting field for speculation.

The negro is peculiarly prone to scrofula and its big brother, tuberculosis. Scrofulous eye disease, facial eczema, scrofulous adenitis, etc., and all manner of tuberculous manifestations, are exceedingly common in the negro. Enlarged tonsils and adenoids are but one expression of what the Vienna pathologists call the "habitus lymphaticus," a diathesis closely related to, if not identical with, scrofula. Why the negro should carefully omit to present these along with the other manifestations of scrofula is difficult to understand, unless it is due to the configuration of the skull and the resulting wide nasal chambers and pharynx, of which mention has been made.

I have seen a few cases of atrophic rhinitis, which seemed to be syphilitic. The same cause has underlain practically all of my laryngeal cases, except a few cases of laryngeal tuberculosis.

The negro is not an especially inviting subject from our point of view. Apart from an esthetic side of the question, he is in sickness a superstitious, disobedient, untruthful, ungrateful, unprofitable, and generally disagreeable patient. But to us he personifies "The White Man's Burden," and since we cannot shirk the obligation which his presence imposes, we may as well study his peculiarities and try to fit ourselves to make the best of what is usually a bad bargain. Not the least of his peculiarities are those which he presents as a pathologic specimen, and I hope from this point of view I have succeeded in bringing out sufficient that is of interest to justify me in presenting the matter to you.

Porter Building.



## RECURRENCE OF TYPHOID FEVER, WITH REPORT OF A CASE.\*

BY L. L. MEYER, M.D.

MEMPHIS.

Late House Physician and Surgeon to New York City (Charity) Hospital, Pathologist to the City Hospital, Visiting Physician to Leath Orphan Asylum, etc.

The question of a second and even a third attack of typhoid fever has been definitely settled, inasmuch as authentic cases have been reported by reliable observers, though it is generally conceded that one attack confers at least partial immunity from other attacks. Hare<sup>1</sup> speaks of a patient who had one attack at 9 years of age, a second at 17 and a third at 19. Moore<sup>2</sup> records the case of a patient who suffered from typhoid at 15 years of age and again at 29, and finally from a relapse after this second attack; and Leidy<sup>3</sup> reports the case of a patient who had an attack of enteric fever at 16 years, a second attack six months later, and a third at the age of 34 years, and this followed by four relapses, with final recovery, though complicated by intestinal hemorrhage.

The case which I have to report is as follows:

Patient, W. E. G., white, aged 37, presented himself at my office November 17, 1899, with the following history: About November 2 he began feeling tired, had frontal headache, malaise, etc., and on taking his temperature found he had fever. He consulted a physician, who put him on quinin, and later, finding the temperature did not yield, he put him on arsenic, iron and strychnia. Finally, not getting any better, he came to me. During this time, about fifteen days, he had not been confined to his bed, but was up and at work. Upon walking into my office he said, after exchanging the courtesies of the day: "Doctor, I believe I have typhoid fever." I asked him why he thought so, and he answered that he had had two attacks previously, and that he now felt just as he had felt on those occasions. This aroused my interest, and upon going into his previous history in detail, it developed that in 1879, when he was 17 years of age, he had a spell of fever diagnosed typhoid by his physician, a man in whose diagnostic ability I have every confidence. He was in bed six weeks, and it was two months before he was again able to be out. The symptoms he described conformed with those of typhoid. In 1888 he again had a spell of typhoid fever, which confined him to his bed from the middle of October to Christmas. He describes his symptoms accurately, even to noting the spots on his abdomen, and being a man above the average intelligence, I have confidence in his observations.

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\* Read before Memphis Medical Society, December 5, 1899.

An interesting coincidence in this case is that the patient's father was taken ill with typhoid shortly after his mother became pregnant with him and died from intestinal hemorrhage seven or eight months before the patient was born. The patient complained, when I first saw him, of frontal headache, loss of appetite, malaise, slight cough, pain in the left lower axillary and right inguinal regions, constipation, and loss of strength. Examination showed temperature  $100\frac{1}{2}^{\circ}$  F., pulse 84, not dicrotic, tongue coated and red at tip and edges, spleen tender to pressure and enlarged so that it could be felt at margin of ribs and below, some tenderness and gurgling in right iliac fossa, no tympanites. On the surface of the abdomen and chest there were ten or twelve typical typhoid spots. A few dry and moist râles were found over both lungs. Blood examination gave a Widal's typhoid reaction, and showed no evidence of malaria. There was some blood destruction. Other interesting features of this case are:

That the morning temperature was never above  $100^{\circ}$ , evening temperature never above  $102^{\circ}$  (and that only on one or two occasions), and the comparative freedom from all disagreeable symptoms except a slight headache and occasional constipation. I attribute these unusual features to a partial immunity conferred by previous attacks of typhoid. The patient is now entirely well, his temperature having lasted about three and one-half weeks.

I desire to state for those who question the clinical diagnosis that in the first sixty hours after I saw this patient he took over 100 grains of quinin with no effect on his temperature, thus eliminating malaria in the diagnosis, as I am a firm believer in the dogma that any continued remittent fever resisting large doses of quinin for several days is not malarial, especially, if no plasmodia are found in the blood after repeated examinations, and I at once suspect typhoid.

Again, some may question the value of Widal's reaction in a case having previously had typhoid. There was an interim of eleven years between this and his last attack, besides the clinical symptoms of rash, enlarged and tender spleen, pain in iliac fossa and temperature confirmed the diagnosis beyond a doubt.

Of course the doubt also arises as to the previous attacks having been typhoid, but, as I have said before, the physicians who attended him were men of undoubted ability, besides, the patient himself, an intelligent man, remarked the striking similarity of the subjective symptoms between this and previous attacks.

#### Bibliography.

<sup>1</sup> Hare—Medical Complications and Sequelæ of Typhoid Fever, page 264.

<sup>2</sup> Moore—Dublin Journal of Medical Science, April, 1893 (Hare).

<sup>3</sup> Leidy—International Medical Magazine, August, 1893 (Hare).

## CORRESPONDENCE.

*Editor Memphis Lancet :*

MEMPHIS, Dec. 9, 1899.

MY DEAR DOCTOR—Will you do me the justice to correct a grave error in the report of my paper on Vesical Calculi in your December issue? You state it as my opinion that the large majority of stone cases are found among the negro race—which is incorrect. What I did say along this line was this: "That the negro race furnish a larger percentage of cases than they have heretofore been accredited with." Quite remote from what you publish, as you can readily see by comparison. Thanking you, etc.,

I am yours truly, F. D. SMYTHE.

[In regard to the above, a request was made of Dr. Smythe, as well as of every other gentleman on the program of the Tri-State Medical Association, to furnish us an abstract of his paper for use in the proceedings, the idea being to prevent in this way any mistakes, and to give an account of each paper satisfactory to its author. Dr. Smythe promised to give us this abstract but failed to do so, hence we were compelled to rely on the notes taken by our reporter, and in this way the mistake occurred.—EDITOR.]

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MANAGEMENT OF NORMAL LABOR.—George P. Shears (*Obstetrics*, October, 1899) brings out the following points: The avoidance of too frequent and unnecessary examinations and routine rupture of the membranes, the needlessness of the Credé method of expression of the placenta in the majority of cases, needless dread of clots, the necessity of macroscopic cleanliness, and avoidance of complete reliance on chemical disinfectants, etc. He also thinks that the importance of perineal lacerations of the first degree is much exaggerated, and that primary perineorrhaphy has had too little attention given it as a factor in the production of infection. He thinks that the day of the use of douches is past, excepting in suspicious cases, and the tea and toast diet is going, as is also the ten days recumbency. The puerperium, while still defined as a period of unstable equilibrium, is still sufficiently stable to get along with less interference. He does not wish to say that these cases should be left not merely to nature, but also to ignorance, but that normal cases should be watched more than meddled with by a competent scientific practitioner.—*Journal of the American Medical Association*, Nov. 11, '99.

# THE MEMPHIS LANCET.

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## EDITORIALS.

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### THE USE OF PROPRIETARY MEDICINES.

As recorded in the last number of the LANCET, the Memphis Medical Society has, by resolution, condemned the use of proprietary medicines. We think that an injustice has been done the manufacturers of a large number of medicines by that resolution, and in behalf of those to whom we think this injustice has been done, we wish to protest against lumping all together and denouncing them. Many of the antipyretics in common use today—indeed all except acetanilid—are proprietary remedies, made often by a secret process and known by a copyrighted name, but whose chemical composition and physiologic action are well known. The same is true of many substances recently introduced to replace iodoform, as well as of the organic silver compounds. It is only by protecting his product under a copyrighted name that the manufacturing chemist justifies the cost of its production. Again, there are certain compounds whose formulæ are vouched for by reputable houses which from a standpoint of pharmaceutical elegance and therapeutic activity surpass the extemporaneous compound, and if we are true to our duty of doing what is best for the patient, we will use them.

Recent investigations in the drug stores of this city have shown, unfortunately, a wonderful discrepancy between what the tinctures

of opium, belladonna, nux vomica, etc., were, and what they should have been. Knowing this, is not a physician wise to insist on the product of a reliable manufacturer being dispensed rather than the home product of a pharmacy of shady reputation? Is it not better for him to leave the pharmacopœia altogether under some circumstances, and use a proprietary remedy, such as ergotole, McMunn's elixir of opium, etc., which are always the same?

The spirit of the resolution is good; that is, we should not depend too much on readymade formulæ, nor learn therapeutics from circulars and drummers. In this much we hope it will be observed, but it cannot and will not and should not deprive us and our patients of the benefits of modern pharmacy, and we feel sure that this was not the intention either of the one who proposed the resolution or those who voted for it.

## REPORTS OF SOCIETIES.

### PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

*Regular Meeting, November 22, 1899.*

The President, Dr. B. F. Turner, in the chair.

Present were, Drs. Turner, Alfred Moore, Krauss, Crofford, Heber Jones, Raymond, Farrington, Buford, Barton, Kane, Haase, W. B. Sanford, Ellett, Holder, Venn, and F. A. Jones.

*Dr. F. S. Raymond* read a paper on *The Physician as a Factor in the Spread of Contagious Diseases*. (See page 13.)

*Dr. Wm. Krauss* said the subject is a neglected one, and the danger lies in this fact. Guiteras says regarding yellow fever that he takes no precautions and has never been instrumental in spreading the disease. But Guiteras is a rapid worker, and only stays a few moments in the patient's room. Diphtheria, smallpox and scarlet fever are most apt to be carried. With smallpox most physicians take due precautions. Hildebrand's classic case was quoted, where an overcoat carried the poison of scarlatina for eighteen months. In diphtheria the contagion is only transmitted by the coughing out of particles of the membrane. An oilcloth coat and proper cleansing of the hands would be sufficient precautions for the physician to take against diphtheria. In scarlatina the conta-

gion is in the air. Sanitary measures have lessened its transmission. It is wrong to differentiate between contagious and infectious diseases, but we should divide them into transmissible and untransmissible, and adopt rules for individual diseases (transmissible). Meningitis is not ordinarily contagious, because the seat of disease is not exposed to the air. Tuberculosis and typhoid fever should be notifiable diseases.

*Dr. E. C. Ellett* spoke of the danger of transmitting disease by thermometers, tongue depressors, etc. The former should be washed before and after using, and best in the patient's presence. Tongue depressors, etc., should be sterilized by boiling or by some antiseptic solution (formalin) and a separate set kept for use on cases known or suspected to be contagious, especially syphilitic.

*Dr. Heber Jones* knows of one case in which a physician carried contagion. It was scarlatina carried to a puerperal woman, with fatal result. He regards the oilcloth coat, disinfection of hair and beard, etc., as impracticable, and only necessary in cases of smallpox. Short visits, careful washing of hands, and avoidance of disturbing the bedding, usually suffice. Unnecessary fondling of other children when attending a contagious disease should be avoided. Vaccination has made the occurrence of smallpox a municipal disgrace, though we here have to deal with the negro population, among whom nearly all our cases occur. Doctor's families do not develop contagious diseases more than others. He prefers a flat, smooth tongue depressor, and relies on ordinary washing to clean it, though he has a separate one for syphilitic cases.

*Dr. Alfred Moore* has refused to attend other cases when seeing diphtheria, but does not think this is often done. Often only one case will occur in a house, a fact we cannot satisfactorily explain.

*Dr. Marcus Haase* sees a good deal of smallpox in his official capacity, and when attending them he gives up other practice and wears a rubber coat. He thinks he once carried smallpox to a person whom he was called to see as a suspicious case. She developed smallpox fourteen days later. Tuberculosis and typhoid are not notifiable, and he does not think physicians would report them if they were, but when the board of health knows of a case of typhoid they investigate the premises to see if they can discover the cause. Their information is derived from the specimens sent to the bacteriologic department.

*Dr. W. B. Sanford* thinks it strange that physicians do not oftener contract and convey diseases. He thinks the rubber coat fits too loosely to give good protection. The physician should be subject to the same rules that laymen are, and he should bathe and change his clothing after seeing a case of contagious disease.

*Dr. Heber Jones* exhibited a thermometer with the index enclosed, the surface being smooth and easy to clean.

*The President* thinks the public is being educated on these subjects, and physicians should and will be compelled to adopt some such cloak as is worn by students in contagious hospitals, i. e., with close-fitting wristbands and hoods. He observes the precaution of taking a bath and changing clothes after seeing a contagious case, but realizes the impossibility of this at times.

*Dr. Ellett* said that there were holders devised to carry glass plates and attach them to tongue depressors to protect the physician from having contagious matter coughed into his face, and at the same time not obscuring the view. These have not come into general use.

*Dr. Raymond* agrees with *Dr. Krauss* that we ought to abandon the classification of contagious and infectious diseases. He also agrees with what was said about the sterilization of thermometers, instruments, etc. He thinks he once carried contagion to one of his own family. The possibility of our contracting and conveying these diseases should not be forgotten. He mentioned the case of *Dr. Will Jones*, who disbelieved in vaccination, contracted smallpox from a patient and died.

*Dr. T. J. Crofford* reported *Some Anomalous Cases of Appendicitis* as follows:

Case I. A woman, aged 20, had been in bed three years with chronic diarrhea, afternoon fever, loss of flesh, abdominal tenderness, greatest over the appendix, and pain on sitting up. Operation revealed a small stump of appendix under the cecum, with a lumen. It was removed and weighed seven grains. Patient has regained her health and forty pounds of flesh.

Case II. Man, aged 35, practically an invalid from pain in the left iliac fossa for a year or two. A tender lump was felt at the site of the appendix, and operation discovered a large inflamed and adherent appendix. Recovery.

Case III. A girl, aged 18, had repeated attacks of appendicitis, resulting in invalidism and neurasthenia. Operation after the ninth attack. The appendix was retro-peritoneal and not much inflamed but was removed. After three years her health is better, the tenderness is gone, but she has had some mild attacks of appendicitis (?)

Case IV. A woman, aged 22, had had pain in the right side for three years, confining her to bed one year. There was no tumor, but operation a week ago showed a large chronically-inflamed appendix containing five fecal masses. The patient is doing well.

Case V. A recent case—that of a man in his second attack of a week's duration with complete obstruction of the bowels, due probably to inflammatory paresis. The patient will probably die, but an operation would do no good—in fact his chances are better without it.

*Dr. Sanford* thinks medical opinion is about to turn from the surgical treatment of appendicitis, which is to be regretted, since the surgical is the only radical treatment. The question is when to operate.

*Dr. Alfred Moore* reported a case with somewhat anomalous symptoms. Operation on the eighth day showed a gangrenous appendix. Recovery.

*Dr. E. M. Holder* saw *Dr. Crofford's* third case, and thought the pain was due to traction by the full cecum on the adherent appendix. She has had hysterical attacks since the operation, but no signs of appendicitis when he has seen her. He thinks the tendency now is to be more conservative as regards operation, and many cases undoubtedly recover without it. The personal equation must be taken into account.

*Dr. Krauss* said that one edition of *Gray's Anatomy* says that the appendix sometimes has a mesentery, implying that it is usually retro-peritoneal. He would rather take his chances with the medical treatment of appendicitis than with operation at the hands of the occasional operator. He would prefer to be treated by operation at skilled hands.

*Dr. Frank Jones* asked if the lungs of *Dr. Crofford's* first patient were examined. He thinks it was a case of tuberculosis of the mesentery, relieved by celiotomy and irrigation. He does not think surgery is retrograding. *Czerny's* rule is that the first attack



of appendicitis belongs to the physician, the second to the surgeon, and it is best to operate in the interval.

*Dr. Raymond* was glad to hear *Dr. Crofford* say he had found a non-operative case. He thinks that many, probably most, cases would recover without operation.

*The President* said that many cases were purely medical. He has seen some where operation was thought to be imperative, but was refused, and the patient recovered.

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*Regular Meeting, December 5, 1899.*

The President, *Dr. B. F. Turner*, in the chair.

The following members were present: *Drs. F. A. Jones, Holder, Raymond, Alfred Moore, Moore Moore, Turner, Sale, Krauss, Hall, Venn, Henning, McKinney, Braun, Smythe, E. E. Haynes, W. L. Haynes, Goltman, Buford, Barton, W. B. Sanford, Lane and Meyer.*

*Dr. E. E. Haynes* read the first paper on *When to Operate in Appendicitis*. His experience leads him to regard the disease as a surgical one. The question is not whether to operate, but only when to operate. He discussed the probable etiology and pathology and the anatomy, to show how readily invasion of contiguous tissues can take place, which cannot be predicted nor differentiated from uncomplicated cases. The time to operate is as soon as the diagnosis is made. If invasion of surrounding tissues has begun, operation may prevent further invasion. On resolution being established it is the correct procedure to wait, and operate in the interval. Special contraindications may exist in given cases, but these must be decided by the surgeon. The most unanswerable argument in favor of the operative treatment is that the operative death rate is less than the medical death rate.

*Dr. Joseph Venn* is sorry that the essayist is an extremist, when the best men have begun to be more conservative. He thinks some cases absolutely require operation; the general run of cases get well without it.

*Dr. B. G. Henning* had been associated with operators, several years ago, and did not see any better results than he gets now by the medical treatment. There are four forms of appendicitis. Regarding the mild catarrhal cases, there is no excuse for operating upon these; suppurating cases generally wall themselves off and

can then be opened like a simple abscess in any other situation. Fulminant cases die under any treatment, and will die if operated upon at once.

*Dr. E. P. Sale* believes in the middle of the road plan. Operation is the only chance for fulminant cases, and he has had some cases saved by operation. These cases have the characteristic face, which is pinched, shock, thready pulse, sighing respiration, etc. Subacute catarrhal cases need no operation, but surgical supervision, dry warmth to parts (which he prefers to cold), turpentine as an intestinal antiseptic, combined with carminatives. The only cases he has ever lost acted imprudently. He related the case of a patient who backed out from the operation of opening the pus sac, and who recovered by spontaneous rupture into the bowel.

*Dr. Alfred Moore* regards this as a surgical disease, if only for surgical supervision. Not all cases are operative cases; the death rate from anesthetics is greater than generally admitted, and is a factor to consider in mild cases.

*Dr. Haynes* summed up the discussion. His paper was suggested by the experience of himself and others, whose patients he had seen. He related cases in point that he had not operated on. He would like to know how the attendant is to judge of the severity of the case before alarming symptoms had developed, or how one can decide whether a given case is one for operation without cutting the patient open to see. A case in point was mentioned, of a child with very mild symptoms, in which he did not urge the operation, which afterward formed a pus sac, but, instead of progressing like *Dr. Henning's* case or *Dr. Sale's* case, ruptured and infected the peritoneal cavity, destroying the patient. The risk is too great to trust such cases to chance. It is not the province of the physician to take chances, but to avoid them; this is true conservatism. The risk of the anesthetic must be accepted.

*Dr. L. L. Meyer* read a paper on *Recurrence of Typhoid Fever, with Report of a Case*. (See page 22.)

*Dr. Sale* related several cases; he did not believe even the presence of malarial parasites excluded typhoid fever.

*Dr. Krauss*, upon request, related some anomalous cases of malaria to show that the clinical symptoms may lead into error. Neither a single blood examination nor the *Widal* test is conclusive, unless in the former instance the stage of the paroxysm is consid-

ered, and in the second something is known about the state of the culture used, its reaction, and the degree of dilution and time of exposure. He did not doubt the essayist's diagnosis nor observation, nor the possibility of recurrences, as the literature is full of them, but would take exception to the dictum that 100 grains of quinin in forty-eight hours eliminates the malarial element.

*Dr. Venn* covered the subject of immunity as relating to typhoid fever.

*Dr. Henning* was surprised, in his service at the City Hospital, at the frequency of the coëxistence of the malarial organism and the Widal reaction, as returned by the pathologist of that institution. Osler says that in over 2000 cases only 3 showed a double infection, while 10 per cent. of his cases were mixed. The death rate of typhoid fever is 10 to 15 per cent., but he never loses a case of the mixed infections. Surely, if they were typhoid some of them would die; nor are they protected from subsequent similar attacks. Gurgling in the right iliac fossa is due to liquid diet and gas, and has no diagnostic significance; diarrhea and bloody stools occur in connection with malaria.

*Dr. M. Goltman* said that the Widal reaction was neither absolutely positive nor negative evidence. The estivo-autumnal parasite is very resistant to quinin, and failure to break the paroxysm with huge doses of quinin does not exclude malaria. He did not doubt the correctness of the essayist's diagnosis.

*Dr. Sale* regards most of our summer fevers as typhoid. He does not make the diagnosis upon one symptom, but the grouping of most of the important signs constitutes a safe diagnosis.

*Dr. Meyer* admits the possibility of double infection, though rare, and thinks the Widal reaction is conclusive of present or past infection with typhoid bacillus. He considers any fever not malarial if quinin is given in large doses for several days with no effect on the temperature, especially if several blood examinations are negative. He differs from Dr. Henning, and thinks typhoid more common than supposed.

## PROGRESS OF MEDICINE.

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CLINICAL DIAGNOSIS OF TYPHOID FEVER.—The *Medical News*, Nov. 11, 1899, gives the following abstract of a paper by Wm. Osler, read before the N. Y. State Medical Association :

There is no one symptom, nor two symptoms, nor three symptoms that are always present in typhoid fever. Any or all of the usual symptoms may be absent. We do not judge by a few positive signs. The diagnosis is a rational one, and must be often made on circumstantial evidence. Yet few diseases are so certain in their diagnosis as typhoid fever. These are practically the words with which Elisha Bartlett begins his chapter on the diagnosis of typhoid fever written in the year 1842. They are as true today as they were then, despite all the work that has been done on the subject since.

For instance, very often we meet with cases in which for five to eight days there is slight fever, and in which we sometimes can feel the edge of the spleen. If rose spots do not develop we are apt to call them simple continued fever. In a number of cases, however, after the cessation of the fever, patients have given the Widal reaction, showing that it was really typhoid fever. A recent epidemic in Switzerland was very interesting in this particular. Some thirty cases of frank typhoid fever were treated in the hospital. Twelve other patients, who had slight headache, moderate temperature and general malaise were not put to bed because they were considered not to have the disease. The application of the Widal test after their convalescence showed that they had had typhoid fever. The Widal test will undoubtedly greatly restrict simple continuous fever as we know it now.

Too much insistence has been given to the abdominal symptoms of typhoid fever. It is very possible for the disease to occur absolutely without abdominal symptoms. Out of thirty-five cases that have been under his care during the last month only four patients have had distinct abdominal symptoms.

Besides the enteric type there are forms of the disease in which the cerebro-spinal, the pulmonary and the renal symptoms are of most importance. Many cases of sporadic cerebro-spinal meningitis

are undoubtedly typhoid fever of the meninges. Very often the typhoid fever is concealed by the occurrence, in the midst of a more or less continuous fever, of a consolidation of one or more lobes of one or both lungs. Undoubtedly certain cases of so-called acute nephritis are really renal typhoid. The disease may run on without other symptoms until the development of rose spots betrays the nature of the disease. There may be no fever at all, or it may begin very abruptly; there may be rose spots, intestinal symptoms may be entirely absent, and so there may be no diazo-reaction. The Widal test may be positive only very late in the disease, or may not occur until after the fever has ceased. There may be no leucocytosis.

Repeated chills usually means malaria. The differential diagnosis of malaria is not so difficult as has been thought. No continued fever diagnosed as malaria here in the North in former times was probably anything but typhoid. The country was shocked during the Spanish-American war by the discrepancy of reports and the disagreement of doctors with regard to the existence of typhoid or malaria in the camps. It was not the army surgeons who were to blame, nor the profession of the country, but the teachers at our medical schools who have not insisted enough on the distinction between these two diseases. Malaria is such an accommodating word. It covers such a multitude of diagnostic sins. It was at least as consoling in its way as the unctuous word *Mesopotamia* to the old woman in the story. Above Mason's and Dixon's line an intermittent fever that does not yield to quinin is not malaria. Practically only tertian fever exists at the North, and this yields readily to quinin in thirty-six or forty-eight hours. At the South we have the estivo-autumnal type which gives rise to a remittent fever. The curve reaches a fastigium and then does not vary by a degree perhaps for days. The temperature chart is like a map of the Pennsylvania Railroad; that of ordinary malaria is more like the multi-serrated line of the Baltimore & Ohio. The estivo-autumnal type may resist quinin for two or three, or even four or five days. The parasite of the disease too is harder to find, so that there is more reason for mistake in diagnosis. Out of a thousand cases observed at Baltimore at Johns Hopkins in only one case did malaria and typhoid occur together. In general and obscure febrile cases it is better to suspect typhoid than malaria. Our position in the matter

should not be the Anglo-Saxon one of thinking the case innocent of typhoid until proved, but rather the Gallic position of considering the case guilty of typhoid until it is demonstrated to be innocent. Two works should be on every physician's table—Keen's "Surgical" and Hare's "Medical Complications of Typhoid Fever."

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REMARKS ON THE SURGERY OF THE GALL BLADDER.—The *Medical Record*, Nov. 25, 1899, gives the following abstract of a paper read by M. H. Richardson before the N. Y. Academy of Medicine:

Surgical relief, Dr. Richardson said, was called for whenever gall stones were believed to be present, for nature was a clumsy operator in such cases. The chief dangers were from shock, hemorrhage and sepsis. On the side of operative intervention the dangers were trivial and the chances of recovery great, whereas on the other side were many and grave dangers and uncertainties. Even in cases of suspected malignancy exploration was indicated, because one often found only gall stones, and could then give complete relief. The patient should be given the benefit of the doubt. His custom was to make a vertical incision between the fibers of the rectus, at first only large enough to admit of the introduction of the fingers. The gall bladder should be aspirated, for sometimes stones that could not be felt at all before such aspiration could be easily detected after this operation. In most cases considerable hemorrhage occurred from the gall bladder after the introduction of the scoop or even of the finger. It was especially liable to occur if the gall bladder had been overdistended. Having removed from the gall bladder all of the stones, the bladder should be temporarily packed with gauze while a digital exploration of the ducts and of the pancreas was made. To close the normal gall bladder and leave it in the abdominal cavity and close the abdominal wound had been, in his experience, a dangerous proceeding, one causing the surgeon much anxiety. A colleague had reported to him a death occurring after this so-called ideal operation. A number of the surgeons at the Massachusetts General Hospital had a feeling of great distrust regarding immediate closure of the gall bladder, with or without closure of the external wound. One reason for this feeling was the tendency after suturing for hemorrhage to take place from the inverted edges of the mucous membrane, and by distending the gall bladder so to stretch the sutures as to allow of leakage of bile.

In some instances he had closed the gall bladder and fastened it to the wound in such a manner that if bile should escape it would come out through the external wound. So far as he knew, there had been no trouble from the insertion of gauze to guard against such accidents.

**Biliary Fistula:** In one or two instances biliary fistula had persisted. If bile escaped from the sinus and none was found in the stools it was clear that there was an obstruction of the common duct. Such a condition after an operation for gall stones, if associated with jaundice, pointed strongly to a stone left behind in the common duct. In one case of persistent biliary fistula the patient had been well so long as the bile had escaped, but as soon as the flow of bile had been obstructed she had become ill. She had not desired an operation, so she had been fed on ox gall and the bile allowed to escape. In cases of this kind in which the presence of a stone was doubtful this treatment seemed quite proper. Contamination of the operative field in ordinary operations on the gall bladder seemed to him not very likely to occur; it was quite different from operations on the appendix. In infections of the gall bladder the operation could be done without much danger of infecting the abdomen, no matter how bad the local infection might be.

**Stones in the Ducts:** When stones were impacted in the cystic duct they might be squeezed up into the gall bladder with the thumb and finger. Sometimes the stone would be so intimately adherent to the altered mucous membrane as to necessitate cutting down upon it and removing it piecemeal. He was not sure that it would not be well to remove the gall bladder in all cases in which it was necessary to incise a duct. In some instances the gall bladder would be apparently malignant. A thickened, adherent gall bladder containing stones should be removed, whether malignant or not. When the symptoms indicated obstruction in the common duct it was necessary to make a long incision. He had not found it necessary to cut across the rectus above, or deviate from the straight line below, as had been suggested. Digital exploration for malignant disease was sometimes misleading and unsatisfactory. When incision into the duct was made, great care should be taken that the large veins were not in the way. All incisions made around the foramen of Winslow should be made with the greatest intelligence and caution. While no doubt the hemorrhage could be checked by ligation of

the portal vein, the patient would die as a result of this ligation. By means of fine sutures a rent in the vein could be satisfactorily closed.

Hemorrhage: He had always been taught that it was dangerous to operate in cases of jaundice, yet he had learned to operate with great confidence in such cases, and had done so successfully for ten years. He had then operated upon what had appeared to be an exceptionally favorable case in every respect, yet the patient had died within twelve hours from a most extensive capillary hemorrhage. It was prudent to tie all points showing any tendency to bleed.

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EXPERIMENTS PERFORMED AT THE CHARITY HOSPITAL AND ELSEWHERE WITH SANARELLI'S ANTI-AMARYLLIC SERUM IN THE FALL OF 1898.—Archinard (*New Orleans Medical and Surgical Journal*, Aug. '99) reports in detail twelve cases treated and draws the following conclusions:

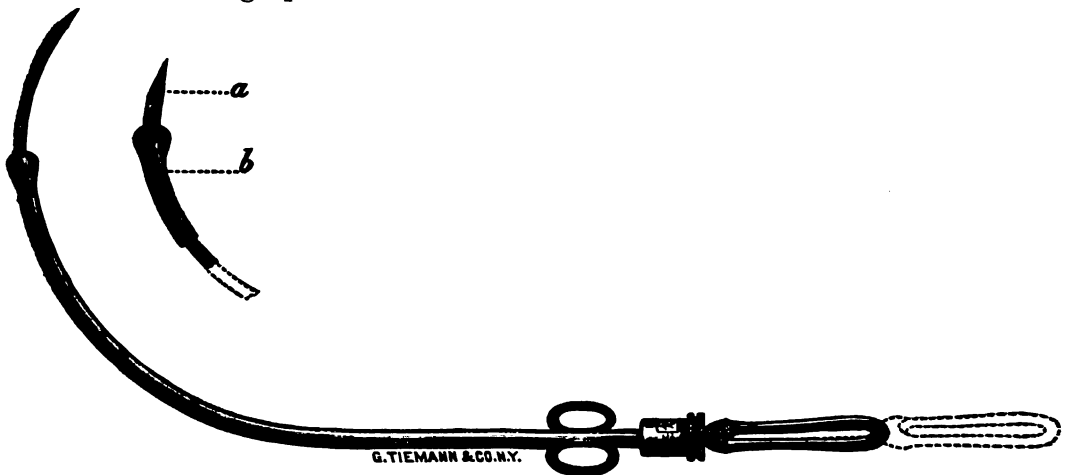
"From the above cases, which limit our experience with the anti-amaryllic serum of Sanarelli as a curative agent in the human being attacked with yellow fever, we are forced to conclude that this agent, in our hands, has shown no curative powers whatever, none of the important and dangerous symptoms of the disease having been in any way mitigated or prevented by its administration. Our hospital cases, it is true, were severe cases, and in some of them treatment was begun at so late a date as to preclude all hope. However, we have had cases enough, we believe, and the patient's symptoms before and after serum injection have shown so little change as to warrant our conclusions, as above expressed. In justice to Dr. Sanarelli, it must be said that he never pronounced himself as believing absolutely that his serum was curative in the graver cases; he cautions all users of the same, that the whole subject is still under study and recommends that the serum be used early. This latter instruction is not always easy to carry out, as a diagnosis cannot always be made early. Indeed, early in cases of yellow fever, it is difficult to say which are going to be severe and which are not, and judging by experience in this city in the last two years, the great majority of cases are benign and get well under any sort of treatment, and necessarily serum employed at random in these cases would be at a great advantage."

Experiments with rabbits showed that the serum had neither protective nor curative properties.



**VENTRAL FIXATION OF THE UTERUS WITHOUT LAPAROTOMY.**—Suggs (*New York Med. Journal*, Dec. 9, '99) says that this may be readily done through the vagina if a suture carrier is used such as is here described and illustrated.

The posterior position is preferable, and Douglas' pouch is opened in the usual way. Uterine adhesions are broken up with the finger, and the ovaries and tubes are examined and treated as indications demand. With two fingers and a tenaculum the uterine fundus is then brought down backward through the opening in the vaginal vault. Two silkworm sutures are placed, preferably in the anterior uterine wall, and the surface scarified. Artery forceps catch the ends of the sutures and the fundus is pushed back into the peritoneal cavity. The patient should now be raised to Trendelenburg's position.



The carrier used is simply a long, curved canula, with a strong, flexible trocar that may be thrust out several inches beyond the bulb-pointed canula, and having an eye near the point for threading. The point is projected from the bulb, and the two ends of a long piece of medium silk are threaded in the eye and the point drawn back into the canula. This leaves a free loop hanging down by the instrument. Into this loop is placed one of the silkworm suture ends that are in the uterus and twisted.

The fingers are directed upward and forward through the vaginal incision toward the abdominal wall, which can be reached

when pressure from without is made. The bulb-ended suture carrier is introduced along in front of the fingers to the abdominal wall, and the needle is thrust through, carrying the silk with it, which is then unthreaded, and in its turn draws the silkworm through. The three other suture ends are in like manner drawn through, their proper or relative positions being maintained, and the opposite ones tied together over a small piece of gauze; the sutures remain in the usual time. The vaginal incision is closed with a few catgut sutures. In the presence of pus the fixation is contraindicated.

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THE FORMATIVE PERIOD OF UTERINE FIBROIDS. — Murray (*Med. Record*, Dec. 2, 1899), from a careful study, offers the following suggestions in regard to the genesis of uterine fibroids:

1. The possibility of determining definite clinical symptoms which would lead to a recognition of a distinct formative period of uterine fibroids, which might suggest a preventive treatment.
2. That the predisposing causes of race, age (other than that of adult life), or condition count for little, and the elaborate reports which form the bulk of the literature up to the present time are of doubtful value.
3. That chronic inflammatory conditions of the endometrium, uterine parenchyma, and of the ovaries and tubes are most powerful predisposing causes, and that there is a direct relation between the hyperplasia of the uterus and the formation of fibro-myomata.
4. That extreme disturbances of the nervous system precede and accompany the formation of uterine fibroids. Insomnia, headaches, and hyperesthesia of the sensory organs are present to a greater degree than is usually found when the concomitant symptoms of the inflammatory condition of the uterus are present.
5. That the evolution of the fibroid from fibro-myomatous centers when it begins to take on growth is exceedingly rapid, and that it is impossible to tell the age of the growth by its size. The rapid appearance and development are the reasons why so few fibroids are seen and examined in their incipiency. That the size and rapidity of growth of a fibroid depend upon its blood supply, which is determined from the beginning by the location of the nidus, and therefore such conditions as pregnancy or the menopause could have little influence.

6. The possibility of the action of curettage as a predisposing cause for these tumors on account of the violence done to the blood vessels, and of hastening their growth, because of concentrating the blood supply.

7. The crystallizing effect of Keiffer's experiments upon the theories in regard to the formation of fibro-myomata. He has demonstrated that the blood supply is cut off from the uterine tissue, which then becomes condensed into whorls of fibrillæ which afterward develop into fibroids, obtaining their blood supply from the surrounding uterine tissue. He has shown that the tumors were composed of an histological structure in no way differing from the normal uterine tissue, save that which related to the concentric arrangement of fibrillæ. There was no evidence of embryonic tissue or new formation.

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THE PATHOGENESIS OF APPENDICITIS.—A. O. J. Kelly (*Phila. Med. Jour.*, November 25, 1899) says the factors that operate to render the appendix less resistant than other portions of the intestinal tract to the onslaughts of bacteria and other determining causes of inflammation are several. Of prime importance is the precarious blood supply of many appendices. The blood supply is defective not alone because of the manifest alterations frequently demonstrated in the walls of the blood vessels, but also because of the liability of the occurrence of partial or complete obstruction of the blood channels as a result of angulations, torsions, etc. Of importance in a limited number of cases is doubtless also alterations in the nerves supplying the appendix; but it is believed that they are not of such great importance as has been suggested by Fowler and Van Cott. Finally, in this connection the evidences of retrogression of the organ are not without significance. The factors that in the appendix give rise to increase in the virulence of bacteria normally present in the intestine are such as interfere with thorough drainage of the organ. Defective drainage may supervene when for any reason the appendix is so situated that it cannot be readily emptied; when its lumen is constricted either externally by bands of cicatricial connective tissue, tumor formations, etc., or by cicatrices of its walls, or by obstructions within its lumen, as, for instance, by fecal concretions or foreign bodies; or when the muscular coat of the organ is no longer capable of active peristalsis, as is likely

to be the case when the appendix is itself diseased or bound down by adhesions. Congestive disturbances of the appendix or of the cecum may cause such swelling of the mucous membrane as to lead to approximation of the apposed surfaces in the appendix, or occlusion of the outlet of the organ, and thus effectually prevent drainage. Of considerable significance with reference to this question of drainage in the etiology of appendicitis are certain of the anatomic and physiologic peculiarities of the organ above alluded to. Of these may be mentioned the size and shape of the meso-appendix, the excessive length as compared with the caliber of the lumen of the appendix, and Gerlach's valve. As further conducive to imperfect drainage are the already mentioned torsions and angulations, which interfere not alone with the blood supply, but also with thorough drainage. Fecal concretions are capable of at least a two-fold action. They may not only occlude the lumen of the appendix, and effectually prevent drainage, but they may also by attrition, the result of constant or intermittent peristalsis, cause erosions of the mucous membrane, and thus reduce the power of the organ to resist the attacks of bacteria or their toxins. When of small size these concretions are doubtless often innocuous, but when they have attained a considerable size and are no longer capable of being extruded, they may engender the most disastrous results.

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**PALATABLE QUININ MIXTURE FOR CHILDREN.**—Greanellé (*N. Y. Med. Jour.*, Oct. 28) says: Having had occasion to prescribe quinin repeatedly for young children, and being dissatisfied with the combination with syrupus yerbæ santæ, I have made a number of experiments with a view to obtaining a pleasant and acceptable quinin preparation which could be continuously administered to children without their objection.

I give below the details for the preparation of a "child's quinin mixture," which I find not only to be readily taken by children, but also serviceable as a bribe to be given after unpleasant medicines, such as stronger solution of quinin.

The mixture is designed as a tonic and malarial prophylactic for children living in malarious sections. It will serve for active medication in acute cases of malarial disease in children of 3 years or younger by giving the larger dose at hourly intervals.

I find that children literally cry for it, and that it has frequently

served as an excellent bribe, to be given immediately after a simple solution of quinin hydrochlorid in water when large doses of the drug are necessary. A teaspoonful of water carrying two or three grains of quinin muriate will be readily taken by any child, with a spoonful of "pink medicine" right after. Those who have little patients in large numbers will appreciate this.

(1) R̄ Quinin hydrochlorate gr. v-gr. x;  
Alcohol ʒj.

M.

(2) R̄ Oil of cinnamon, } each m xxx-xl;  
Oil of anise, }  
Magnesia q. s.;  
Water ʒj.

M. Let stand for some hours; filter.

(3) Mix 1 and 2 and add:  
Simple syrup ʒiij;  
Carmin or cochineal solution gtt. v.

Dose, one or two drams, as directed.

Saccharin in small quantity helps to disguise the larger dose of quinin.

Small doses of Fowler's solution may be added, if indicated, or sodium bromide for children made irritable by quinin.

Druggists will make this in quantity and keep it in stock if requested. It is simple, easily made, and inexpensive. Moreover, children like it.

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THE IMPORTANCE OF EARLY DIAGNOSIS IN LOCOMOTOR ATAXIA AS AFFECTED BY THE NEWER PATHOLOGY.—W. B. Pritchard (*N. Y. Med. Jour.*, July 22, 1899) says that the early diagnosis of tabes is of vital import as regards prognosis. Early symptoms are extremely varied.

Certain recent additions to the pathology of this disease caused him to write this paper. Formerly, it was supposed to be simply a sclerosis of the posterior columns of the cord. Waldeyer, through Golgi's stain, established the neurone as the nervous unit. Neurones include the cell, its nucleus, and all its processes as a unit. The neurone he considers is the one belonging to the posterior spinal ganglia and ganglia of the sensory cranial nerves. The axone of this neurone divides into two branches, one of which passes to the periphery, the other to the cord. The fibers from the latter divide into three sets of fibers and pass up in the cord, some in the

posterior horn of the cord, some entering Clarke's and Goll's columns, some passing up entire length of cord through columns of Burdach's cord and ending in the medulla.

These neurones in the posterior ganglia are then the trophic centers for both the peripheral and posterior roots. They are very vulnerable to disease for various reasons, such as exposure, precarious blood supply, etc. In advanced disease we find degeneration in the columns of Lissauer, Goll, Clarke and Burdach.

Early symptoms are sensory and neurotrophic. Motor late. Syphilis, the great etiologic factor in tabes dorsalis, exerts its influence by impairing nutrition, and since these neurones are vulnerable we have as a result of impaired nutrition a parenchymatous atrophy and not a syphilitic neoplastic growth. The short fibers of the dorsal roots are the first to yield, and then the medium and then the long fibers. This explains the so-called stationary periods. Secondly a sclerosis follows this atrophy or neuritis.

Such is the newer pathology of locomotor ataxia. Assuming it to be true, what are the correlated deductions as to prognosis and treatment? Realizing the importance of diagnosing this condition before the period of secondary sclerosis, he mentions certain early symptoms.

Bear in mind age, sex, occupation, and syphilis. Any nervous disturbance in a man 30 to 45, who has had syphilis, if sensory, should lead to examination of knee jerk, pupils, and genito-urinary apparatus. Periodical vesperian headaches with insomnia in fore part of night. Unusual and excessive fatigue. Cachectic appearance. Disturbances of common sensation, such as defects in tactile, pain and muscular sense. The characteristic shooting pains are often the first symptom. May affect fifth nerve and teeth may be lost and hair become brittle.

Ocular symptoms: Strabismus and ptosis with diplopia occurring suddenly in a male adult means locomotor ataxia. Pupillary changes common early. Myosis. Argyll-Robertson loss of reaction to light.

Nerve atrophy is sometimes the primary symptom.

Romberg's symptom, inability to stand with eyes closed.

Genito-urinary symptoms: Sexual impotence dependent upon defective erection should excite suspicion. Defective sensibility of scrotum is a common early sign. Derangement of vesical function, slight incontinence or tardiness.

Reflexes: Loss of knee jerk. In cervical tabes knee jerk may be normal. Loss present in 92 per cent. of cases.

Trophic symptoms: Perforating ulcers. Sudden painless swelling of joints, arychia, herpes, bullæ, etc.

Crises: Gastric, enteric, laryngeal, bladder, rectal, may be the beginning of locomotor ataxia.

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THE EXCRETION OF URIC ACID DURING AN ATTACK OF GOUT.—Badt (*Zeitsch. F. klin. Med.*, Bd. 27, heft 5 and 6—*Am. Jour. Med. Sci.*, Nov., '99) "delivers another blow at the old and generally accepted teaching concerning the relation between uric acid excretion and gout. He reports the results of estimations of uric acid in five cases of gout—four estimations being made in each case: three of them during the acute attack, and the fourth some weeks later, in order to compare the conditions at the two periods. In no instance was the excretion found lessened during the attack; indeed it was usually greater than in the interval, though the increase was so slight as to be negligible. This is, of course, directly opposed to the old teaching that there is uric acid retention in the early part of the attack, and free excretion as the attack passes off; and the work is confirmatory of that done by other recent workers who have used accurate methods. Taylor's work (*Am. Jour. Med. Sci.*, August, '99) has shown very convincingly that in a healthy man the excretion of all the urine bodies is almost exactly parallel to the quantity contained in the food, a fact which has been generally overlooked in considering the amount excreted in attacks of gout. This is a matter of especial importance, as but small quantities of food are taken, as a rule, in the early part of the attacks, and as the intensity of the suffering and depression becomes less the patients take relatively larger amounts of food."

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NON-DIABETIC GLYCOSURIAS.—A distinction should be made between diabetes mellitus and glycosuria. Under the latter denomination should not be involved the many glycosurias occurring temporarily from increase of the physiologic amount of glucose in the blood, or from a transient disturbance, viz., malarial attack, epileptic seizure, strangulated hernia, cholera, anesthesia, asphyxia, intoxications (curare, carbon oxide, phlorizine, urane nitrate, nitro-benzine, etc.)—all conditions analogous to the experimentation of the

physiologist who in his laboratory can produce and arrest at will glycosuria.

Glycosuria of a more persistent character is that which is mistaken for diabetes mellitus; yet it should be differentiated from it. Diabetes mellitus is a clinical entity involving other symptoms than glycosuria. It can exist without glycosuria. In fact at the time glycosuria disappears in many cases of diabetes mellitus, the stage is one of aggravation, if not of fatal termination. All the symptoms in diabetes mellitus indicate severe nutrition changes and final disintegration.

The lasting glycosurias spoken of here, not due to the diabetic condition, have a common feature which serves to distinguish them as a class; they are symptomatic, and they may be divided in the following manner upon the study of these etiologic factors:

1. Intermittent glycosuria in arthritics:
  - a Hereditary arthritic glycosuria in young subjects.
  - b Gouty glycosuria in adults and old age.
  - c Glycosuria in obesity.
  - d Azoturic glycosuria.
2. Digestive glycosurias:
  - a From excessive alimentation with sweet and starchy food.
  - b From disturbances of digestion.
3. Nervous glycosurias:
  - a In systematic affections of the nervous system (brain, bulb, medulla and nerves.
  - b In neuroses and psychoses.
  - c Traumatic glycosuria.
  - d Puerperal glycosuria.

*Les Glycosuries non Diabetiques par Germain Roque, 1899.*

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SOME CLINICAL OBSERVATIONS IN RECTAL DISEASES. — Sherwood-Dunn (*Jour. Amer. Med. Assn.*, Nov. 11, '99) refers in his paper to some cases of pruritus ani, the most obstinate of which was due to small superficial ulcers between the internal and external sphincters, showing on the posterior surface, but which may be also found on the anterior surface of the gut, and in the latter situation is very likely to be unnoticed; he calls it "simple ulcer of the rectum" and says it needs to be looked for carefully. Care is necessary in using



the speculum, as this will displace tissues upward and turn the surface away from the operator; its livid purple color and rough surface are points to aid in its discovery. In office practice he treats them by first applying cocain, then cauterizing with lactic acid, pure; the surplus is wiped away, and the patient directed to inject, twice daily if possible, after evacuation, two ounces of 25 per cent. peroxid of hydrogen. Two cases are related, one of which developed double ischio-rectal abscesses and was curetted, when, upon examination there was a very small ulcer as the cause of the trouble. The other was a woman who had been treated for a month for pruritus, that had a large ischio-rectal abscess from an opening in the bowel fully six inches up. Another case is reported that recovered from a sinus operation in sixteen days.

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EPIDEMIC CEREBRO-SPINAL MENINGITIS AND LUMBAR PUNCTURE.—Dr. J. L. Hirsch (*N. Y. Med. Jour.*, August 19) says: As to the therapeutic value of lumbar puncture all do not agree. By relieving abnormal pressure, and probably by getting rid of some of the toxins, the beneficial results can readily be conceived. The technique of the operation is simple and the pain to the patient is but slight. In children I have found the best position to be with the child lying on its right side and its back slightly arched, so that the spinous processes stand out prominently. Many prefer the child in the sitting position. The puncture is to be made between the second and third, or the third and fourth, lumbar vertebræ. The needle, from 5 to 8 cm. long, is thrust in about 1 to 2 mm. from the median line, so as to avoid the strong intra-spinous ligament. When the needle is within the spinal canal its point can be felt to move freely; if the fluid does not flow spontaneously, slight suction may be made with a hypodermic syringe. Needless to add that all anti-septic precautions must be observed. A procedure so simple, so readily carried out, and so absolutely devoid of danger, has no contraindications for diagnostic, if not for therapeutical purposes.

## BOOK REVIEWS.

Any medical book can be obtained through the *Lancet* at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

- **An American Textbook of Surgery for Practitioners and Students.** By Phineas S. Connor, M.D., Frederick S. Dennis, M.D., William W. Keen, M.D., Charles B. Nancrede, M.D., Roswell Park, M.D., Lewis S. Pilcher, M.D., Nicholas Senn, M.D., Francis J. Sheppard, M.D., Lewis A. Stimson, M.D., J. Collins Warren, M.D., and J. William White, M.D. Edited by William W. Keen, M.D., LL.D., and J. William White, M.D., PH.D. Third edition, thoroughly revised. Philadelphia: W. B. Saunders, 925 Walnut street, 1899. Price, cloth, \$7; sheep, \$8, net.

The third edition of this valuable and standard textbook brings it entirely up-to-date. Its popularity and worthiness is evidenced by the fact that it is used as a textbook in over 100 medical colleges in this country. To a book, which since its first edition, in 1892, has been recognized as authoritative, we can safely give our commendation. New topics have been introduced, such as the use of dry heat at high temperatures, serum therapy, surgery of typhoid fever, operations on stomach, surgery of ureters, rubber gloves, etc., etc. The sections on Appendicitis, Fractures and Gynecological Operations have been enlarged and revised. A number of new illustrations have been added, one of which, a colored plate showing several specimens of appendicitis, is very beautiful. This book combines cheapness with completeness, giving as it does the whole subject of Surgery under one cover.

**Progressive Medicine.** A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., etc. Volume III, September, 1899. Diseases of the Thorax and its Viscera, including the Heart, Lungs and Blood Vessels; Diseases of the Skin; Diseases of the Nervous System; Obstetrics. Lea Brothers & Co., Philadelphia and New York: 1899.

This is the third of the series of Lea's quarterly, and up to the standard of its predecessors. The first part is under the charge of William Ewart, M.D., F.R.C.P. He regards finger percussion upon a pleximeter as the most delicate method. Other means of physical examination are discussed, including Litten's sign, the Roentgen ray, and bronchoscopy. This department covers 151 pages and cites 342 references. Diseases of the pleura, air passages, lungs, of the esophagus, blood vessels and heart are considered. The diseases of the skin, by Henry W. Stelwagon, cover 100 pages and a rich bibliographic reference. We find a quotation from Tuttle, to the effect that X-ray burns so far reported have been from the use of the induction coil, and never from the static machine. This department contains 11 photographic reproductions, the only illustrations in the book. The diseases of the nervous system, by Wm. G. Spiller, contains, in 70 pages, very numerous brief excerpts from the literature of the past year. The subject matter is very varied. The balance of the volume is on the progress of obstetrics, by Rich. C. Norris. It is presented under the following heads: Pregnancy, extra-uterine pregnancy, eclampsia, the surgery of obstetrics, accidents in labor, the puerperium, puerperal complications, and lactation. The subject matter is handled rather editorially.

**A Textbook of Embryology for Students of Medicine.** By John Clement Heisler M.D., Professor of Anatomy in Medico-Chirurgical College, Philadelphia. With 190 illustrations, 26 of them in colors. Philadelphia: W. B. Saunders, 1899. Price, \$2.50, net.

The book is especially designed for anatomy students, and occupies a middle ground between compends and the very exhaustive scientific works now extant. It covers the ground as completely as the ordinary medical student can possibly need. The style is lucid and free from prolixity, and controversial matters are decided, with due conservatism, in favor of the latest teaching. The illustrations are well chosen and the typography is up to the standard for which this house is famous. There is no bibliographic reference and no list of illustrations. The reading matter covers 390 pages, which include a very useful chronologic table, reference to which will tell at a glance what each tissue is doing at any period of development. The book is not intended for laboratory work.

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**Annual and Analytical Cyclopedia of Practical Medicine.** By Charles E. de M. Sajous, M.D., and One Hundred Associate Editors, assisted by Corresponding Editors. Collaborators, and Correspondents. Illustrated with Chromo-Lithographs, Engravings and Maps. Volume IV. Philadelphia, New York, Chicago: The F. A. Davis Co., 1899.

We have already expressed our admiration for this excellent work, a feeling which the present volume does much to strengthen. Conspicuous among the articles composing this volume are those on "Diarrheal Diseases of Infants," by Professor Blackader, of Montreal, and the one on "Malarial Fever," by Professor J. C. Wilson and Dr. Thos. G. Ashton, of Philadelphia, the latter being particularly elaborate. The volume is uniform with its predecessors, and in appearance reflects as much credit on its publishers as its contents do on the editor and his assistants.

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**The Surgical Diseases of the Genito-Urinary Tract, Venereal and Sexual Diseases.** A Textbook for Students and Practitioners. By G. Frank Lydston, M.D., Professor of the Surgical Diseases of the Genito-Urinary Organs and Syphilology in the State University of Illinois (the Chicago College of Physicians and Surgeons); Professor of Criminal Anthropology in the Kent College of Law; Surgeon-in-Chief to the Genito-Urinary Department of the West-Side Dispensary; Late Major and Surgeon U. S. V.; Fellow of the Chicago Academy of Medicine; Fellow of the American Academy of Political and Social Science; Delegate from the United States to the International Congress for the Prevention of Syphilis and the Venereal Diseases, held at Brussels, Belgium, September 5, 1899; etc. Illustrated with 235 engravings. Philadelphia, New York, Chicago: The F. A. Davis Company, publishers, 1899. Price, cloth, \$5.

This book contains 1000 pages, and is composed of ten parts respectively: Part I. General Principles of Genito-Urinary, Sexual and Venereal Pathology and Therapeutics. Part II. Non-Venereal Diseases of the Penis. Part III. Diseases of the Urethra and Gonorrhea. Part IV. Chancroid and Bubo, and their Complications. Part V. Syphilis. Part VI. Diseases Affecting Sexual Physiology. Part VII. Diseases of the Prostate and Seminal Vesicles. Part VIII. Diseases of the Urinary Bladder. Part IX. Surgical Affections of the Kidney and Ureter. Part X. Diseases of the Testis and Spermatic Cord. A careful survey of the above brings us to the conclusion that the various subjects of genito-urinary, venereal and sexual diseases are all mentioned. The views of the author as to the specificity of the gonococcus not being adequately proven, are at variance with our own, as we believe that all cases of specific urethritis are due to

gonococci. The plan of treatment of acute urethritis deserves special commendation for its simplicity, conservatism and thorough consideration of all remedies. The chapters on syphilis are very complete and modern. The illustrations are good, type plain, price moderate, and the book is one of the most complete on these subjects we have seen.

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**Notes on the Modern Treatment of Fractures.** By John B. Roberts, A.M., M.D., Professor of Surgery in the Philadelphia Polyclinic; Mutter Lecturer on Surgical Pathology of the College of Physicians of Philadelphia. With 39 illustrations. New York: D. Appleton & Co., 1899. Price \$1.50.

In the short preface the author, for whom we have the greatest respect, says: "No injuries require more careful and judicious treatment than fractures; and in no branch of surgical therapeutics is the exercise of common sense followed by more satisfactory results." In the pages that follow he clearly demonstrates these facts; for example, he reports a series of forty-three Colles fractures treated in a period covering three months in the simplest possible way, but with the very best results. He calls attention to the fact, in a very cursory way, that in this antiseptic and aseptic era compound fractures often do better than simple fractures, so far as deformity is concerned, for the reason that in compound fracture the surgeon can deal directly with the deformity by the aid of sight and touch, thereby getting better apposition, better union, and consequently less shortening. He therefore does not hesitate to cut down upon the seat of fractures, in selected cases, and wire, nail and rivet the broken ends of the bones, his preference being wire nails. We are glad to learn that in this the author confirms the views of Warbasse, who, in a series of many hundred cases of fractures, found the direct method of treatment the best. The author also gives tenotomy a prominent place in the preliminary treatment of fractures, making particular reference to subcutaneous tenotomy of the tendon of Achilles and the quadriceps extensor. He also advocates, but in a half-hearted way compared with most of his other teachings, direct suture of the fractured patella, confessing at the same time that he has but rarely been compelled to resort to this procedure. This does not altogether harmonize with his other statements *regarding direct treatment, safer and quicker convalescence, etc.* It is somewhat refreshing to note the manner in which the author deals with the question of retention apparatus. *The simplest is the best* is what he practically says, and by way of illustration shows on page 36 Bardenheure's dressing for an ordinary fracture for the lower end of the radius, in which the patient is confined to bed and surrounded by complicated pulleys, which pull in five different directions. Comparing this illustration with the one on page 43, where the same fracture, after proper reduction, this being the main consideration, is shown treated by a simple wristlet of adhesive plaster, the Bardenheure pulleys look ridiculously out of place, and we are witness to the most excellent results under the simpler treatment in the author's hands. The author pays his respects to the question of passive motion in the after-treatment of fractures as follows: "If the joint is involved in the line of fracture passive motion at an early stage will not prevent ankylosis, but may increase it by causing a greater degree of arthritis; if the joint is not involved by the fracture line early passive motion is not needed." The subsequent passages on this important point are of the greatest possible benefit to the student and young practitioner, and it is to these that we particularly commend the book. The X-ray is not forgotten as a diagnostic aid, and as an aid in the reduction of deformities, and several very interesting shadowgraphs are depicted. The book is short, readable and well printed, and after carefully reading it we can heartily recommend it.

## BOOKS AND PAMPHLETS RECEIVED.

*The Physician's Visiting List (Linsay & Blakiston's) for 1900.* Forty-ninth year of its publication. Philadelphia: P. Blakiston's Son & Co. Sold by all booksellers and druggists.

*Notes on the Modern Treatment of Fractures.* By John B. Roberts, A.M., M.D., Professor of Surgery in the Philadelphia Polyclinic: Mutter Lecturer on Surgical Pathology of the College of Physicians of Philadelphia. With thirty-nine illustrations. New York. D. Appleton & Co., 1899.

*Annual and Analytical Cyclopedia of Practical Medicine.* By Charles E. de M. Sajous, M.D., and one hundred associate editors, assisted by corresponding editors, collaborators and correspondents. Illustrated with chromo-lithographs, engravings and maps. Volume IV. Philadelphia, New York, Chicago. The F. A. Davis Co., 1899.

*An Atlas of the Bacteria Pathogenic in Man, with Descriptions of their Morphology and Modes of Microscopic Examination.* By Samuel G. Shattock, F.R.C.S., Joint Lecturer on Pathology and Bacteriology, St. Thomas' Medical School, London; Pathologic Curator of the Museum of the Royal College of Surgeons, London. With an Introductory Chapter on Bacteriology; Its Practical Value to the General Practitioner. By W. Wayne Babcock, M.D., Pathologist to the Kensington Hospital for Women; Clinical Pathologist to the Medico-Chirurgical Hospital; Demonstrator of Pathology and Bacteriology in the Medico-Chirurgical College of Philadelphia. Sixteen full-page colored plates. E. B. Treat & Co., New York. 1899. Price \$1.

*The Surgical Diseases of the Genito-Urinary Tract, Venereal and Sexual Diseases.* A Textbook for Students and Practitioners. By G. Frank Lydston, M.D., Professor of the Surgical Diseases of the Genito-Urinary Organs and Syphilology in the Medical Department of the State University of Illinois; Professor of Criminal Anthropology in the Kent College of Law; Surgeon-in-chief of the Genito-Urinary Department of the West Side Dispensary; Fellow of the Chicago Academy of Medicine; Fellow of the American Academy of Political and Social Science; Delegate from the United

States to the International Congress for the Prevention of Syphilis and the Venereal Diseases, held at Brussels, Belgium, Sept. 5, '99, etc. Illustrated with 233 engravings  $6\frac{1}{2}$  by  $9\frac{1}{4}$  inches. Pages xvi-1024. Extra cloth, \$5 net; sheep or half Russia, \$5.75 net. The F. A. Davis Co., Philadelphia.

*A Textbook of Materia Medica, Therapeutics and Pharmacology.* By George Frank Butler, PH.G., M.D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Medical Department of the University of Illinois; Professor of General Medicine and Diseases of the Digestive System, Chicago Clinical School; Attending Physician to Cook County Hospital; Member of the American Medical Association, Illinois State Medical Society, Chicago Medical Society, Chicago Pathological Society, and Chicago Society of Internal Medicine; Fellow of the Chicago Academy of Medicine, etc. Third edition, thoroughly revised. Philadelphia. W. B. Saunders. 1899.

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## NEWS AND NOTES.

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THE publishing house of J. B. Lippincott & Co., Philadelphia, was recently destroyed by fire.

DR. R. H. MITCHELL has withdrawn from the firm of Mitchell & Maury, and has an office in the Southern Express Building.

DR. J. M. FOSTER, Professor of Otology in the University of Denver, spent the month of December in Memphis. He was the guest of the Memphis Medical Society at its annual banquet.

DR. WADE J. LANE has resigned his position as medical referee of the Equitable Life Assurance Society, and will leave for Marshall, Texas, where he will resume practice early in January.

SURGEON G. M. MAGRUDER has been relieved from duty at the U. S. Marine Hospital, Memphis, and ordered to London to study the plague. He was succeeded by Asst. Surgeon D. E. Robinson.

DR. ALLISON BROWN, who has been Dr. B. G. Henning's assistant for two years, will open an office in the Randolph Building on January 1st. Dr. Bruce Harkness will be with Dr. Henning after that time.

DR. GEO. E. PETTEY is contemplating opening a sanatorium in Memphis for the treatment of the whisky and drug habits. We are sure that he will be welcomed, as his treatment is scientific and his methods strictly ethical, and we may add, very successful.

THE following officers have been elected by the Memphis Medical Society for 1900:

President—Dr. E. C. Ellett.

Vice-President—Dr. E. A. Neely.

Secretary and Treasurer—Dr. Edwin Williams.

Reporter—Dr. Richmond McKinney.

SUIT has been brought by the heirs of Mrs. Nancy E. Taylor of Thornport, O., against Dr. J. F. Baldwin of Columbus for \$10,000 damages, the allegations being that he caused the death of Mrs. Taylor. Mrs. Taylor died from blood poisoning after an operation performed at the Protestant Hospital by Dr. Baldwin. A post-mortem examination showed that a cheesecloth sponge had not been removed from the woman's body after the operation. This sponge was shown to have been the cause of death. This was freely admitted by Dr. Baldwin and the hospital authorities. Dr. Baldwin laid the blame upon the nurse who assisted him with the operation, and in a series of published letters declares he asked the nurse if all the sponges were accounted for, and she answered "yes."

THE Thirteenth International Medical Congress will be held in Paris from the 2nd to 9th of August, 1900, in connection with the French Exposition. All Doctors of Medicine are entitled to membership in this Congress by making the proper application and paying the sum of \$5.00. The Secretary-General in Paris has instructed the American National Committee to receive the applications of American physicians, and the Committee hopes the American representation in this extremely important Medical Congress may be as large as possible, and they would urge every member of the profession to enter his name for membership, this alone entitling him to receive a digest of the full proceedings of the Congress and the printed report of the section to which he belongs. Dr. Henry Barton Jacobs, 3 W. Franklin St., Baltimore, is the secretary of the American Committee.

A DECISION of considerable importance has been made by Judge Kohlsaat in the United States Circuit Court. In a bill for an

injunction Fairchild Brothers & Foster of New York had charged Edward Otto, a Chicago druggist, with substituting a spurious and inferior preparation for "Fairchild's Essence of Pepsine," where the latter was expressly called for in physicians' prescriptions. Judge Kohlsaat's decree sustains the charges made, perpetually enjoins Otto from ever repeating the offense, and taxes him with the costs, amounting to about \$500. This is said to be the first contested case in the United States in which the principle of protection to trade marks and trade names was extended so as to apply to what is technically known in the drug business as "substitution." Judge Kohlsaat's decision will probably protect manufacturing chemists, physicians and the general public, all of whom have in the past suffered from these fraudulent practices of a certain class of druggists.

THE first Annual Banquet of the Memphis Medical Society was held at the Cordova Hotel on December 19th. Thirty members attended, and the evening was most pleasantly spent. The following toasts were given :

"Our Profession"—Dr. E. C. Ellett.

"Fraternal Relations"—Dr. Heber Jones.

"Kitchen Physic"—Dr. B. G. Henning.

"The Old Doctor"—Dr. D. D. Saunders.

"The Young Doctor"—Dr. Richmond McKinney.

"Ye Specialist"—Dr. F. S. Raymond.

"Wives and Sweethearts"—Dr. N. F. Raines.

"Fraternal Relations"—Dr. E. P. Sale.

"Denver"—Dr. J. M. Foster.

"Our New Officers"—Dr. E. A. Neely.

"The Memphis Medical Society"—Dr. B. F. Turner.

The health, long life and happiness of Dr. D. D. Saunders was proposed, to which Dr. Saunders made a touching response.

THE following ordinance is self-explanatory :

#### SMALLPOX ORDINANCE.

Section 1. Be it ordained by the Legislative Council of the City of Memphis, That the Board of Health of the city is hereby empowered to declare, by resolution, when any houses, blocks or districts in the city, or within one mile thereof, are infected with smallpox contagion or liable to become so infected, and to set forth in such resolution the location of such houses and the boundaries of such blocks and districts.

Section 2. Be it further ordained, That when such resolution is passed by the Board of Health it shall be the duty of all persons residing in the houses, blocks or



districts, so designated in said resolution, who have not been successfully vaccinated, to cause themselves to be vaccinated at once, and to provide themselves with the certificate of a reliable physician that said person has been successfully vaccinated, and the date thereof, or that such person has been so often and carefully vaccinated as to prove further vaccination unnecessary; and said certificate shall be produced when called for by any officer of the health or police departments; and all parents or guardians of children residing or found within such house, block or district shall cause their children or wards to be vaccinated.

Any person residing, or found, within any house, block or district declared by the Board of Health to be infected, or subject to infection, and who, at the expiration of five days after the passage of said resolution, shall have failed to be vaccinated, shall be guilty of a misdemeanor, and fined not less than two dollars nor more than fifty dollars for each offense. And, furthermore, said person shall submit to compulsory vaccination by any health officer or physician designated for that purpose by the President of the Board of Health, and all children shall be subject to compulsory vaccination.

And any person who refuses to be vaccinated as herein required, or resists compulsory vaccination, shall be guilty of a misdemeanor, and shall be fined not less than two dollars nor more than fifty dollars for each offense.

Passed third and final reading December 7, 1899.

Attest: W. B. ARMOUR, Secretary.

J. J. WILLIAMS, Mayor.

THE Semi-Annual Meeting of the West Tennessee Medical and Surgical Association was held at Milan, Tenn., Thursday and Friday, Dec. 14 and 15, 1899. The following program was presented :

1. Fractures of Lower Extremities—Jere L. Crook, M.D., Jackson.
2. Colles Fracture—W. S. A. Castles, M.D., Oakland.
3. Static Electricity in the Treatment of Diseases—Wm. T. Watson, M.D., Lexington.
4. Acute Bronchitis in Children—J. R. Nelson, M.D., Eurekaton.
5. Pseudo Cyesis—Alfred Moore, M.D., Memphis.
6. Atypical Typhoid Fever (so-called)—J. H. Reilly, M.D., Memphis.
7. Differential Diagnosis of Eruptive Fevers—T. J. Happel, M.D., Trenton.
8. Small Pox—F. S. Raymond, M.D., Memphis.
9. Treatment of Valvular Lesions of the Heart—Frank A. Jones, M.D., Memphis.
10. Empyema—A. E. Cox, M.D., Milan.
11. Exhibition of Specimens with Remarks—E. C. Ellett, M.D., Memphis.
12. Abscess of the Liver with Report of Case—M. Goltman, M.D., Memphis.
13. Public Education in Regard to the Care of the Teeth—M. M. Haltom, D.D.S., Paris.
14. Reports of Cases—T. J. Crofford, M.D., Memphis.
15. Correction of Deviated Septum—Richmond McKinney, M.D., Memphis.
16. Senile Pneumonia—J. S. Rawlings, M.D., Dancyville.

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## CHICAGO MORTALITY

4.78 per cent.

In Chicago during the months of November and December, 1898, and January and February, 1899, there were treated with Parke, Davis & Co.'s Antidiphtheritic Serum by the Antitoxin Staff of the Chicago Health Department 418 cases (microscopically verified), with 20 deaths—a mortality of 4.78 per cent.



## DENVER MORTALITY

3.5 per cent.

In Denver during 1898 there were treated with Parke, Davis & Co.'s Antidiphtheritic Serum 230 cases, with 8 deaths—a mortality of 3.5 per cent.

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## CLINICAL NOTES.

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A CONTRIBUTION TO THE THERAPEUTICS OF PEPTO-MANGAN, "GUDE."  
Dr. Ludwig Pohl (*Aerztlicher Central Anzeiger*, Vienna, Austria, Sept. 20, 1899) writes :

It is about five years ago that I first had occasion to test Gude's Pepto-Mangan. The curative results obtained from its use were so surprisingly good that I decided to thoroughly experiment with this preparation on my abundant clinical material, the outcome of which is reported in this article.

The number of remedies introduced every year into the market is so great that for this reason alone it would be impossible to employ all of them, even if only experimentally, or to make a careful choice. Pepto-Mangan appealed to me strongly in the first instance for reasons that I shall explain. Although inclined to think well of this preparation from the first, I would remark that my observations were instituted without bias, and that my investigations were carried out in a strictly scientific manner.

I was led to make a thorough study of this preparation by the subjective statements of the patients that it never caused the least disturbance, the objective evidences of improvement, and, besides these, by the following considerations :

According to the views of many authors, iron preparations, to be efficient, must exert not only a local but distant, that is, general effect. In chlorosis and in many severe cases of anemia chalybeates are said to remove the hydrogen sulphide, formed frequently in large amount in the alimentary tract, by the combination of the iron with the sulphur. This removal is necessary, because hydrogen sulphide, if present in too large quantity, renders impossible the absorption of the iron in the food by precipitating it in the form of sulphide of iron. It is known, however, that not only iron but also manganese is adapted in a high degree for taking up hydrogen sulphide. Manganese therefore acts as an auxiliary to iron in this respect.

Another circumstance was decisive to me. A large number, almost all, of the officinal ferruginous preparations are absorbed only to a slight extent when administered internally. This can be maintained on the ground of the fact, that in animals and human beings positive evidence of the entrance of these preparations into the blood cannot be obtained if the persons experimented with have

not intestinal catarrh or have not received excessive doses of iron. The more the preparation approximates to the form in which iron is contained in the food, the more likely it is to be absorbed. The peptonizing of an iron preparation is therefore of decided advantage, as its absorbability and assimilability is thereby enhanced to a considerable degree. Aside from this, the peptone combination is adapted for exerting the systemic effect. This general action of iron preparations only takes place if after absorption they undergo conversion into hemoglobin. Hence this conversion is only possible in the case of preparations which contain iron in form of an organic combination. They will then act even when containing a much smaller percentage of absolute iron.

It was therefore the chemical constitution of the preparation which appealed to me, and which induced me to undertake extensive experiments.

The cases in which I employed Gude's Pepto-Mangan comprised chiefly the poorer class of people. I mention this particularly, because with these patients it is difficult or well nigh impossible to pay attention to the hygienic conditions or to consider the dietetic side of the treatment. Notwithstanding this, the results were favorable. Of course, they were most satisfactory in the cases of those patients who were able to carry out the hygienic and dietetic regulations.

Numerous cases of chlorosis, anemia, neurasthenia, and hysteria, as well as two cases of malarial cachexia, were submitted to careful and thorough observation.

In many cases determinations of the bodily weight, measurements of the blood pressure, estimates of the hemoglobin percentage, and blood counts were made.

As regards the bodily weight, I observed in sluggish, obese, chlorotic patients a reduction in flesh as well as improvement of the general state. The high absorbing power of the preparation and its ready conversion into hemoglobin increases the oxygen capacity of the blood; *pari passu* with this there is an improvement of the metabolism, the oxidation, which takes place at the expense of the non-nitrogenous elements of the body, that is, the adipose tissue. In the case of lean persons I combine with this treatment rest in bed for several weeks, to which may be ascribed the increase of bodily weight observed.

There was a constant change in the conditions of blood pressure. In almost all the chlorotic patients the blood pressure, estimated by Basch's sphygmomanometer, became considerably higher. In many of my cases I noted improvements in the blood pressure of

40 to 60 millimetres in the course of four weeks. Besides this, the fluctuations of blood pressure, so frequently observed during changes of position, disappeared; the pulse frequency diminished considerably; and the subjective disturbances connected with the circulatory apparatus, especially the troublesome palpitation of the heart, subsided. I would remark that this amelioration occurred under the use of no other remedy in so short a time as under that of Pepto-Mangan.

In judging of the value of an iron preparation, conclusive evidence is afforded by estimates of hemoglobin and blood counts. To determine the hemoglobin I employed Fleischl's hemoglobinometer, and as a solvent a 0.6 per cent. sodium chloride solution; for blood counts I made use of the apparatus of Thoma-Zeiss and a 2.5 per cent. solution of potassium bichromate for the red blood corpuscles; the white were not counted.

To demonstrate the changes in the hemoglobin and in the number of red corpuscles, I report here the history of a girl, 16 years old, affected with marked chlorosis. The disease was of almost two months' duration and attended with general functional disturbance. There were present mental anxiety, a disinclination to work, to enjoy life, or move about, marked muscular weakness, cardiac palpitation, difficulty in breathing, loss of appetite, headache, vertigo, restless sleep alternating with sleeplessness. The patient came from healthy parents, had previously been always healthy, and menstruated for the first time in her fifteenth year, but scantily and irregularly. Marked pallor of the skin and mucous membranes was noted; the lungs were normal. The area of cardiac dullness was enlarged toward the right side; blowing murmurs were heard over all the valves, and a bruit over the jugular vein. The radial artery was very small and soft; the pulse frequency 110. The spleen and liver were normal in size; there were no glandular swellings; the bones were not tender to pressure. The urine contained no abnormal constituents.

The percentage of hemoglobin in the blood was 35 per cent.; the number of red blood cells, 2,700,000 to the cubic millimetre. The white cells were not increased; otherwise the condition of the blood was normal.

The treatment was as follows: The patient was advised to live on a mixed diet, with an abundance of fresh air and moderate outdoor exercise. She also took three teaspoonfuls of Pepto-Mangan daily.

The increase of hemoglobin and of the number of red corpuscles is shown in the following:

At end of 1st week,	Hemoglobin,	45 per cent.,	Red Corpuscles,	3,260,000	} To the Cubic Millimetre.
" " 2d "	"	60	"	4,100,000	
" " 3d "	"	70	"	4,500,000	
" " 4th "	"	75	"	4,900,000	

Before proceeding with the history of this case I would emphasize the fact that the number of red blood cells increased more than one and one-half million, while the increase of hemoglobin amounted to more than 100 per cent. Such marked improvement in the condition of the blood under the treatment with Gude's Pepto-Mangan was not unusual, but rather the rule in chlorosis. And it may be assumed with certainty that the above described effect is attributable to the high absorbability of this preparation as compared with the numerous other chalybeates, and further, to the combined action of iron and manganese upon the blood-forming organs. I would add that numerous investigators, such as Hannan, Kugler, and many other authors, have called attention to the important part played by manganese both in the blood and as a hematogenic remedy.

In the case under consideration there was a perceptible improvement in the patient's subjective and objective state. The existing disturbances subsided gradually; the cardiac palpation, loss of appetite and sleeplessness disappeared, and after four weeks' treatment she was discharged cured.

It is not the purpose of this report to detail numerous histories of cases, and I shall content myself with briefly mentioning that I have treated more than 100 cases of chlorosis with Gude's Pepto-Mangan with as good results as those above described, except that in some instances the results did not appear as promptly. The fact cannot be sufficiently emphasized that during the entire course of treatment the remedy did not have to be discontinued on a single occasion, although this must be often done with other ferruginous preparations. I never heard a complaint that the preparation was not well tolerated; on the contrary, the patients stated that they did not experience the slightest disturbance even during its prolonged use, and that it acted mildly, was well borne, caused no disturbance of digestion, but rather promoted the latter, and was free from any disagreeable taste.

I have previously mentioned that it may be positively assumed that Pepto-Mangan stimulates the hematopoietic organs to increased activity. Numerous blood findings discovered casually by me, the appearance of the so-called immature forms of blood corpuscles, constrain me to take this view. Of much greater importance is the circumstance, however, that in numerous diseases of the blood occurring in connection with the lymphatic and blood-making organs I have derived excellent results from Gude's Pepto-Mangan.

Decided amelioration in the leukemic state, arrest of the process in severe cases for a long time, reduction of the glandular swellings, improvement in the relation between the red and white corpuscles, were noted by me in several cases under my care.

In my opinion, the value of ferruginous preparations in neurasthenia and hysteria has received too little consideration. The success of a rational therapy depends upon an effective application of all methods of treatment and remedies which enable us to combat the entire group of symptoms. An easily absorbable ferruginous preparation is of incontestable benefit, and I believe that Gude's Pepto-Mangan occupies a prominent place in this connection. It is not my intention here to institute comparisons with various iron preparations. I would emphasize, however, for reasons already mentioned and which are especially based upon the composition of Gude's Pepto-Mangan, that I prefer the latter preparation, and have employed it successfully in all conditions where it is necessary to improve the quality of the blood.

In conclusion, I would mention that I have obtained excellent results from Gude's Pepto-Mangan in two cases of severe malarial cachexia. In the one case the treatment occupied three weeks, in the other five weeks. Both cases were cured. *It is of interest that in the first case, in which a malarial attack had not occurred for some time, a typical paroxysm with rigor, fever and sweats developed after one week's treatment. The attack failed to recur, and for this reason I was unable to search for plasmodia.* I am not disposed to overestimate this occurrence, nor to make it the subject of theoretical reflections. I am decidedly of the opinion, however, that this attack is attributable to an influence of Pepto-Mangan upon the spleen.

In all particulars Pepto-Mangan is an excellent preparation, which bids fair to occupy a permanent place in the materia medica. I would be pleased if through this article I had directed attention to this valuable remedy, and incited others to undertake experiments and report their observations.

**GEO. E. PETTEY, M.D.**

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**THE CATARRHAL DIATHESIS.**—In catarrhal affections of the various mucous membranes, particularly of the respiratory tract, there exists, not only a relaxed atonic condition of these structures, but an underlying constitutional state of malnutrition. All authorities agree that in order to eradicate the local pathologic conditions, treatment by appropriate systemic remedies is indispensable; the patient's nutrition must be fostered and restored so that a degree of constitutional vigor is attained which antagonizes the catarrhal processes. Gray's Glycerine Tonic Comp. is the remedy par excellence in these cases, because it has a two-fold action. Primarily and chiefly it overcomes malnutrition; it re-establishes normal nutrition by eradicating the ever-present atonic condition of the digestive organs, thus assuring the maintenance of normal digestion and assimilation of food; restoration of tone and nervous force to the entire system, and incidentally to the mucous membrane, is a natural sequence. Gray's Glycerine Tonic Comp. has, moreover, a direct local antiphlogistic and tonic influence upon the disordered circulation of the mucous membrane; it relieves engorgement and restores tone to the relaxed atonic blood vessels. This remedy will prove effective in obstinate and recurrent catarrhal affections of the respiratory and gastro-intestinal tracts which have resisted all other treatment. The Purdue Frederick Co., Sole Proprietors, 15 Murray St., New York.



**ANEMIA PSEUDOLEUKEMICA.**—Under the name of anemia infantum pseudoleukemica, Dr. S. Klein describes a severe form of anemia peculiar to children. This condition was first mentioned by von Jacksch, and is characterized by the presence of more or less intense anemia, by a marked enlargement of the spleen, by an increase in the size of the liver, and by considerable emaciation. In these cases the blood is found to contain a large number of nucleated corpuscles, both normoblasts as well as megaloblasts, and an excess of leukocytes. The number of neutrophils and multinucleated leukocytes being thereby considerably diminished. These cases closely resemble ordinary leukemia, but differ from it in the absence of extreme leucocytosis, while the prognosis is also more favorable. The disease usually occurs during the first year of life, and is especially frequent in children of the poorer class of people, owing to an insufficiency of nourishing food. The treatment consists in careful hygiene, in the administration of some ferruginous preparation, and in proper nutrition. Among the chalybeate remedies the author found Ferro-somatose of especial service, giving it in doses of 20 grains three or four times daily. In the eight cases which are reported in detail, the percentage of hemoglobin as well as the number of red blood corpuscles rapidly increased under the administration of Ferro-somatose, which is attributable, both to the nutritive action of somatose and to the prompt assimilation of this organic iron preparation into hemoglobin. In milder cases complete recovery resulted in one month, while in the more severe it was prolonged over two months in only one instance.

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**SEPTICEMIA POST-ABORTION.**—Dr. Robert H. Lawrence, Chicago (*Amer. Gynec. & Surg. Jour.*), reports a case as follows: Mrs. D. A., aged 23, married five months; aborted October 1; saw her on October 5; she was septic, temperature 103°, pulse 122; curetted and gave carbolyzed douche. In the evening temperature went to 104°, pulse 150. Gave stimulants and intra-uterine douche, Borolyptol 3ii, and vaginal douche, carbolyzed water. October 6, 2:30 P.M., temperature 104°. Consultation with Dr. A. McDiarmid; curetted again and used 1-8000 bi-chloride intra-uterine douche, which was followed by chill, abdominal tenderness, and temperature rose to 105.5°, pulse 140. October 7, temperature rose again; gave another bi-chloride douche, followed by chill, etc. Then discontinued bi-chloride and used Borolyptol intra-uterine douche twice a day, with the result that on Oct. 21 patient was discharged cured. Is much pleased with the action of Borolyptol in this case as compared with bichloride. No pains, chills or rise of temperature followed its use. Considers Borolyptol superior to sublimate for these cases.

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We call the attention of our readers to the advertisement of the Robinson-Pettet Co., Louisville, Ky., which will be found on another page of this issue. This house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to endorse their preparations as being all they claim for them.

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THE NEW ORLEANS POLYCLINIC.—*Thirteenth Annual Session* opens November 20, 1899—closes May 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, Louisiana.

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**FELIX PAQUIN, Ph. B.,**

Chemist and Bacteriologist of the Board of Health.  
Member of the Association of Official Agricultural Chemists.

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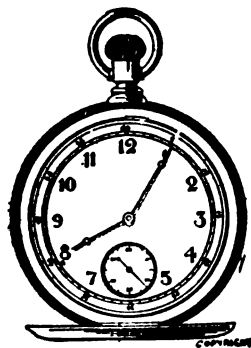
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## ORIGINAL ARTICLES.

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### TYPHOID FEVER, WITH SOME OF ITS COMPLICATIONS AND SEQUELÆ\*

BY A. E. COX, M.D.

MILAN, TENN.

Prior to the nineteenth century, typhoid fever was practically unknown. In the early part of the nineteenth century observers and clinicians began to notice a difference in the types of continued fevers. Huxham in particular, and Brettonnau in 1813 distinguished it to be a separate disease. In 1829 Louis' Practice appeared, in which typhoid fever was probably first described and named. Gerhard, of Philadelphia, who had been a student of Louis', was the first to clearly lay down the difference between the two diseases. This was in 1837. Typhoid fever is described as an infectious, specific, febrile disorder, characterized by hyperplasia and ulceration of the lymph glands of the intestines, with the constant presence in them of the bacillus of Eberth, and enlargement of the spleen. The disease is marked clinically by fever, diarrhea, abdominal tenderness, tympanites, and a rose-colored eruption situated on the abdomen and chest.

Typhoid fever is practically a disease of the temperate climates, though it prevails to a greater or less extent in the tropics, and is

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\* Read before Tri-State Medical Association, Memphis, November, 1899.



not unknown by any means in the colder countries. It prevails extensively and sometimes epidemically throughout all portions of the United States and Canada; in more recent years, since its etiology has been better understood, epidemics are becoming more rare, probably because of better sanitary conditions. Season exerts a great influence upon the prevalence of the disease, more than half of all cases occurring during the months of August, September and October, and by some authorities it has been designated "autumnal fever." It has been observed that typhoid fever prevails more extensively after long, hot and dry summers, and different theories have been advanced in explanation of this. Buchanan holds that the lower the water is, the greater the amount of solid matter that must be suspended in it. Should there then be germs in the soil, the water will contain them in larger proportion and be to that degree more poisonous. Dust is thought to be a medium through which the germs are often transmitted, and in support of this theory the following may be offered: The spread of typhoid fever at our various military camps during our recent war, was all out of proportion to a spread which might have resulted from contamination of drinking water, which is admitted to be the usual manner or medium through which it is transmitted; as in camps which used artesian water the disease prevailed the same as in camps where the artesian water was not used.

In a paper read before the British Medical Association, Dr. Jno. Robertson, Medical Officer of Sheffield, on "Soil as a Factor in the Spread of Certain Diseases," maintains that while the water carriage of typhoid infection is important, the attention given to it has obscured the relatively still more important subject of dust or filth-borne typhoid. He has studied the subject carefully, and finds that in over 80 per cent. of the earlier cases the theory of water or milk infection will not suffice to account for the occurrence of the disease. He finds also that the typhoid fever dies out quickly in grass-covered areas, that when planted beneath the surface it has a tendency to extend upward rather than downward, and that it is capable of living and multiplying in the ordinary surface soil. The transference of the germs from the soil to man is made, he feels assured, under certain conditions, chiefly through the medium of aerially-carried dust. Of course it must be borne in mind that the disease is not always transmitted through the medium of drink-

ing water, milk or dust, but sporadic cases occur where there is no trace of infection through these sources, and some other explanation must be offered.

Males and females are about equally liable to the disease, though males are more often admitted into the hospitals than females, because they congregate in cities where the infection of typhoid is more rife.

Typhoid fever is essentially a disease of young adult life, though it may occur in childhood or in old age. There is a marked susceptibility to the disease on the part of some families, and there is a difference in the susceptibility of different individuals in the same family. A change of residence, habits and modes of life seems to predispose to the disease; in fact, anything which causes a catarrhal state of the intestinal mucous membrane will determine somewhat the occurrence or non-occurrence of the disease. The state of any one's health outside of the intestinal catarrh has little or nothing to do with the development of typhoid fever. Influences which depress, such as overwork, anxiety, nostalgia, etc., may reduce the tone and resisting power of the system to such an extent as to render it susceptible. The specific germ, as described by Eberth, is a short, thick bacillus, motile, and with rounded ends, on one of which there can usually be seen a round, glistening body, believed by some to be a spore. It grows on various nutritive media, such as potato, gelatin, agar, blood serum and bouillon, and also in milk, and in the latter they become very large. These bacilli produce various poisons called ptomaines, typhotoxins, toxalbumins, etc., and it is the absorption of these poisons which produces the characteristic febrile reaction which in due course of time, provided the febrile stage lasts long enough, produces the typhoid state.

In the vast majority of cases the bacilli find their way into the organism through the intestinal mucous membrane, having been imbibed in drinking water or milk, or as already set forth in this paper, by inhalation of dust containing them, and finding lodgment in the mucous membrane of the lungs. As to what takes place after the bacilli gain entrance into the organism is as yet not definitely known. They may multiply in the alimentary tract, but it is very probable that they immediately penetrate the intestinal mucous membrane and lodge in the lymphatic tissue of the bowel, the mesenteric and lymphatic glands, and in the spleen and liver.

Typhoid fever is not a very contagious disease. Only those who come in close contact with it by handling the bedpan, linen, etc., are exposed, the exhalations from the lungs and skin being practically harmless. After the germs gain a foothold, we know quite well the results. Hyperplasia of the lymphatic follicles of the lower portion of the ileum and cecum always occurs, and the jejunum and colon may likewise be involved, and in rare instances even the duodenum, stomach and rectum.

Peyer's patches usually receive the brunt of the infection, becoming swollen, enlarged and prominent. The infiltration may extend beyond these glands into the muscular, and in rare instances into the serous coat. Following this hyperplasia we have necrosis of the tissues and sloughing, which gradually spreads from the edges inward, leaving a raw surface, an ulcer, which must heal by granulation. If the necrosis of the tissues extends far enough, we have perforation of the bowels, and we may have, and usually do have, hemorrhage when the necrosis is marked in either the inner or middle coats of the bowel. The spleen, liver and kidneys are more or less involved, each organ being enlarged, and in the case of the spleen it sometimes becomes excessively large, even to the point of rupture.

Apropos of some of the changes above referred to, I want to report a few cases which have come under my observation.

Case I. A. E. C., the writer, at 21 years, was confined to bed first, October 8, 1893. For a week previous to this I lay around, feeling not well, but up most of the time; had headache and backache, with a marked pain in the back of the head and neck; acute coryza, indigestion, constipation, and a general feeling of malaise, and tongue coated white. Temperature, October 9th at 10 A.M., was 103°, pulse 100; at 2 P.M. temperature was 105°, pulse 100; at 6 P.M. temperature was 104°, pulse 100; at 12, midnight, temperature was 102½°, pulse 100; October 10th, 6 A.M., temperature was 102°, pulse 96; at 10 A.M. temperature 103°, pulse 100; at 2 P.M. temperature 105°, pulse 100; 6 P.M. temperature 104°, pulse 100; 12, midnight, temperature 102½°, pulse 102; October 11th, 6 A.M., temperature 102°, pulse 102; 10 A.M. temperature 103½°, pulse 104; 2 P.M. temperature 104½°, pulse 104; 6 P.M. temperature 105°, pulse 104; midnight temperature 103°, pulse 104. The temperature and pulse curve seemed to remain for the next few days as stated above until October 15th, when there was a sudden drop in temperature to 97°, but pulse rose to 130 per minute, weak and compressible; pupils became dilated, skin moist, cold and clammy. Of course the trouble was very apparent. Within a short while I had several large and bloody stools; my condition grew worse steadily, and it seemed that the end was near at hand; pulse was hardly perceptible, temperature remained sub-normal; pupils widely dilated, respiration shallow and irregular, extremities cold, and there was no improvement for thirty-six

hours; but at the end of this time my condition began to improve, pulse became a little stronger and not quite so fast; temperature gradually rose to 103°. For the next week my condition was extremely grave; there was coma vigil, subsultus tendinum, delirium of a low muttering character, sordes on teeth; temperature ran high, from 103° to 104°, pulse from 120 to 130 per minute; meteorism was marked. I was so weak that I could not raise my head off the pillow. Treatment was, for fever, cold water in line of a sponge bath; for hemorrhage, acetate of lead and opium; pabulum, milk, chicken broth and beef tea, and plenty of water to drink. I am indebted to my preceptor, Dr. T. E. Stokes, for the report of this case.

Case II. J. H., æt. 28. I saw him first September 19, 1895. He gave the following history: About the middle of August he was taken down with some kind of fever which lasted about a month. Immediately after his fever subsided he came from Alabama to Humboldt, Tenn., and while on the trip he became delirious with a recurrence of the fever. When I saw him he was very much emaciated, fever 103°, pulse 120 per minute, tongue was clean, bowels began running off and never checked, meteorism became very excessive, singultus developing on the twelfth day, and my patient died two days later from exhaustion. This case is reported only in part, as I have lost some of my notes and cannot recall all the facts in the case.

Case III. Minnie R., æt. 18. I saw this case in consultation with Dr. H., August 6, 1896, at 9 A.M. The patient had then been sick eight days. Her symptoms were as follows: Tongue coated with a brown coat, edges and tip clean, with the latter somewhat red and furry; abdomen tender in right iliac fossa, spleen enlarged, temperature 104½°, pulse 120 per minute; diagnosis, typhoid fever. Treatment recommended was sponging for fever, strychnia to support the heart, sulpho-carbolate of zinc as an intestinal antiseptic; milk and the animal broths was the diet. This patient progressed nicely, and by the end of the third week was convalescent. Her mother gave her an apple on the third day after the fever had reached normal, and the patient died twenty-four hours later of perforation of the bowel.

Case IV. C. H., æt. 38; October 15, 1896, first saw patient. Temperature was 102°, pulse 90, tongue furred, emesis marked, bowels constipated, headache, backache; diagnosis, remittent malarial fever; treatment, quinin as an antiperiodic, calomel as a purgative, and other symptoms met as they arose. After noting that treatment did not better my patient's condition I examined very closely for typhoid fever, and found the clinical symptoms present and the treatment was changed. This patient had a typical attack of typhoid fever, which ran the usual course during first attack. He suffered a relapse which ran a three-weeks course, and during second and third weeks of this relapse he became unable to void his urine, and his bowels were so constipated that it was difficult for him to have an action under any circumstances. He seemed to have lost control of the expulsive power of both bowels and bladder. He also suffered with violent attacks of enteralgia, which were usually allayed by turpentine stupes and heat locally applied. For some days after subsidence of fever this inability to void urine and feces persisted, but it gradually passed off as convalescence was established.

Case V. Lucile B., æt. 8. She was seen first September 1, 1897. She presented an atypical clinical picture of typhoid fever, which ran rather an irregular course, in fact I would at times doubt if I had a case of typhoid fever, and would allow a somewhat liberal diet, when the symptoms would become aggravated, and on the fifteenth day she had two decided hemorrhages from the bowels, which were promptly

controlled with morphin hypodermically. She improved every day after having the hemorrhages, and by the twentieth day was free of fever.

Case VI. Jennie K., æt. 25. She was seen first September 4, 1897. Temperature 102°, pulse 106 per minute, headache, backache, tongue heavily coated, bowels running off, abdomen tender, especially so in right iliac fossa, rose-colored macular eruption over chest and upper portion of abdomen. Bronchitis was marked throughout the attack, which lasted some twenty days. So marked was the bronchitis that it completely masked the true condition if one was not careful to note the chief symptoms of typhoid fever. Recovery complete.

Case VII. J. H. I first saw him July 19, 1898. He had clear symptoms of typhoid fever, and the disease ran rather a protracted course, but on thirty-second day he was free of fever and in fair condition. Two days later his bowels began to run off, probably from the effects of overfeeding, and nothing I did had any effect in checking them. My patient died three days later from sheer exhaustion.

Case VIII. Elsa B. I saw her in consultation with Dr. C., February 2, 1899. Her history was somewhat as follows: During the latter part of the summer of 1898 she had an attack of typhoid. She recovered sufficiently to be up and around after having the fever, but could never say that she felt well. When I saw her she had a cough without expectoration, dyspnea on the least exertion, chills with rise of fever twice daily, sweats profuse, pulse 120, dullness on percussion over entire left lung; aspiration in sixth intercostal space revealed the presence of pus. An operation of resection of the ribs for the relief of the empyema was advised, but it was promptly and persistently refused by patient. She was told the inevitable result if she did not submit to the operation, but she answered by saying, "let me die," which she did a few weeks later.

Case IX. Jim. E., æt. 25; family history good. This case I saw in consultation with Dr. R., August 29, 1899. His physician informed me that during the first week he was not able to make a differential diagnosis between malarial remittent fever and typhoid; but at the time I saw him, beginning of the second week, symptoms pointed to typhoid fever. This patient's stomach was so irritable that it would not retain any thing. Strychnin was administered hypodermically, and rectal alimentation resorted to. I saw the patient again two days later, and succeeded in allaying emesis with cocain; rectal alimentation continued, strychnin continued. Again on September 9th, ten days later, I saw the patient and found him suffering from hemorrhage of the bowels, and as he was already weak I felt that it would take but little to carry him off. His physician had already given him morphin hypodermically. I simply advised the drug continued *pro re nata*, and suggested protonuclein in ten gr. doses, to be given every four hours, which was consented to. It was given in powdered form, dry, dropped on tongue and swallowed with little water. This was the first medicine given by the mouth and retained for ten days. Rectal alimentation was discontinued, owing to increased peristalsis and hemorrhage. Patient promptly stopped bleeding, and retained his strength for some days on nothing but protonuclein. Strychnin was continued hypodermically; his stomach began to tolerate small quantities of milk, which was increased until he took two pints per day. He made an uneventful recovery.

Case X. Geo. S., æt. 23, married; family history good. September 9th at 10 P.M. I first saw him. His symptoms were: Fever 103°, pulse 106, headache, backache, epis-

taxis, abdominal tenderness, diarrhea with brown coat on tongue, spleen could be palpated below margin of ribs, liver enlarged and tender to pressure. A physician had seen him every day for a week, and had made a diagnosis of malarial fever; had dosed him with quinin in large doses. Three days later I saw him again, and found all of the above symptoms intensified, with very marked tenderness over both kidneys, a rose-colored eruption over chest, and to make a diagnosis now was a very easy matter. The case progressed in the usual way for a case of typhoid fever to progress until the beginning of the fourth week, when I noticed that the urine was too red, and by the end of twenty-four hours the hematuria became well marked, and a slight hemorrhage from the bowels developed; purpura was noticed first on chest, but later became marked on other parts of the body. These hemorrhages increased steadily until my patient succumbed four days after their first appearance.

Case XI. Odell C., æt. 20, single; family history good. On September 3, 1899, I first saw him. His symptoms were very misleading during the first ten days of his sickness, as they were very much like those of malarial remittent fever, and I treated him accordingly until I observed that quinin had not the effect characteristic of it in malarial fever. Up until this time there had been no symptoms which characterize typhoid fever, save that the fever remitted. At this stage there developed a diarrhea, with slight tenderness in right iliac fossa. For the next eight days I treated this case as typhoid. During the latter part of the first week of convalescence a venous thrombosis developed in left femoral vein, which caused edema and tenderness of the left limb, especially along the femoral vein, which could be felt to be swollen and hard. The calf of the leg became rather markedly swollen, and was more elastic; nor would it pit, as is the case in ordinary swelling. The limb was powerless, and there was a slight fever which accompanied the swelling, tenderness and increased weight of limb. Convalescence was somewhat more tedious in this case than is ordinarily so, but recovery was complete.

The typical symptoms of typhoid fever should be and are recognized by most clinicians, and unless one is very cursory in examination there need be no trouble in making a correct diagnosis; but there are cases, and especially in the earlier stages of the disease, when one cannot say whether there is typhoid, malarial remittent, or some other fever present. To illustrate the difficulty of making a differential diagnosis in some cases at all stages, I cite some passages from Osler's *Practice of Medicine*. On page 33 he says:

"The early and intense localization of symptoms in certain organs is a frequent source of error in diagnosis. The following are the most frequent deviations from the normal course: *a*, onset with pronounced nervous symptoms; *b*, with pronounced pulmonary symptoms; *c*, with intense gastro-intestinal symptoms; *d*, with symptoms of acute nephritis. Cases coming on with severe headache, photophobia, delirium, twitching of the muscles and retraction of the head, are almost invariably regarded as cerebro-spinal

meningitis. I have thrice performed autopsies on cases of this kind in which no suspicion of typhoid fever had been present, the intense cerebro-spinal manifestations having dominated the scene. Fully one-half of the cases of so-called brain fever belong to this category. Misleading pulmonary symptoms occasionally develop at the very outset of the disease. The bronchitis rarely causes error, though it may be intense and attract the chief attention. More difficult are the cases setting in with a chill and followed rapidly by pneumonia. I have brought such a case before my class one week as typical pneumonia, and a fortnight later shown the same case as undoubtedly one of typhoid fever. In another case in which the onset was with definite pneumonia, no spots developed; and though there were diarrhea, meteorism and the most pronounced nervous symptoms, the doubt still remained whether it was a case of typhoid fever or one of pneumonia in which severe secondary symptoms developed. There is less danger of mistaking the pneumonia which develops at the height of the disease, and yet this is possible, as in a case admitted a few years ago to my wards—a man aged 70, insensible, with a dry tongue, tremor, ecchymosis upon the wrists and ankles, no rose spots, enlargement of the spleen, and consolidation of his right lower lobe. It was very natural, particularly since there was no history, to regard such a case as senile pneumonia with profound constitutional disturbances; but the autopsy showed the characteristic lesions of typhoid fever.”

“The differential diagnosis between general miliary tuberculosis without local manifestations and typhoid fever is extremely difficult. The cough may be slight or absent. Diarrhea is rare in tuberculosis; the bowels are usually constipated, but diarrhea may occur and persist for days. In certain cases the diagnosis has been complicated still further by the occurrence of blood in the stools. Enlargement of the spleen occurs in tuberculosis, but it is neither so early nor so marked as in typhoid fever. In children, however, the enlargement may be considerable. The urine may show traces of albumin, and unfortunately the diazo-reaction which is so constant in typhoid fever, is also met with in general tuberculosis.”

Typhoid fever has been mistaken for appendicitis. I was told of a case in one of the large hospitals of this country, in which the fever and the presence of a tender induration in the right iliac fossa seemed to indicate appendicial disease so clearly that an operation

was performed, but the induration was found to be the swollen ileum and adjacent glands. In a person who has had a previous appendicitis the diagnosis might be extremely difficult, as in a case mentioned by Da Costa.

Late in the convalescence of typhoid fever the symptoms of appendicitis may develop, due to the perforation of an unhealed ulcer. In the Widal test we have almost a positive sign of typhoid fever. The committee of the Section on Medicine of the American Medical Association says, "It must certainly be regarded as the most constant and reliable sign of typhoid fever, if not an absolute test." Cabot, in his recent work on "Serum Diagnosis of Disease," has compiled some 5978 cases of typhoid fever of which there were 97.2 per cent. which gave a positive reaction. This statement unquestionably speaks for itself, and in a most flattering manner. Some of these cases diagnosed clinically as typhoid fever and which did not give the positive reaction, might have been cases of mistaken diagnosis. Johnson, of Montreal, has demonstrated that the Widal test may be made with blood after it had dried, which adds materially to the value of the test, as a drop of blood may be placed on paper, allowed to dry and sent some distance before the test is made. According to the same authority, "All that is necessary in making the test is to have a good microscope with one-fifth to one-eighth inch objectives, a pure bouillon or agar culture of the typhoid bacillus, some cover glasses and slips, a platinum wire loop and a drop of dried blood from the case to be examined. With this simple outfit, combined with the necessary knowledge of bacteriologic technics, it is safe to say that in a vast majority of cases typhoid fever may be accurately diagnosticated as early as the end of the first week. After a diagnosis is made, then comes the complex question of treatment, every man having some treatment or other which he believes to be superior to that of some other, and from the fact that we have so many modes of treatment, they serve only to lead one to believe that none are very satisfactory.

Referring again to that high authority, Prof. Osler, he states that "the profession was long in learning that typhoid fever is not a disease to be treated by medicines. Careful nursing and regulated diet are the essentials in a majority of cases." The plan hit upon by myself in my early experiences was that advocated by I. Burney Yeo, of London, which consisted in thirty grains of



powdered potassic chlorate placed in a twelve ounce bottle and sixty minims of strong hydrochloric acid poured on it and water added after the chlorine gas had been generated. Of this solution, one ounce in water was given every two, three or four hours, according to the severity of the case. Quinin in three doses of four grains each was given during the twenty-four hours, and other symptoms were met with an appropriate remedy as they arose. Of course the general management of any patient is that which is ordinarily adopted in any case of acute disease. Plenty of fresh air in the room, an abundance of good, pure water, perfect rest in bed from the outset, frequent cleansing of linen and bed-clothing and absolutely fluid diet, milk being preferred. My treatment at present is a modification somewhat of the above; the intestinal antiseptic (if there is one) is the liquid guaiacol.

I have never noticed any antipyretic effect from guaiacol when the medicine was administered internally. It is given for its antiseptic properties, and after giving it for some little time, the stools become redolent with the characteristic odor, showing that the medicine must have passed over the diseased surfaces as guaiacol and rendered these parts antiseptic. When the liquid guaiacol is not well tolerated by the stomach, I use guaiacol carbonate. I use calomel with soda at first every two hours to procure a thorough evacuation of the bowels and get a full flow of bile, which latter is nature's antiseptic. Salines increase the effect of these drugs and the effect of the guaiacol is augmented.

The impression is common that the administration of cathartics in typhoid fever is dangerous. This error is founded upon the fact that diarrhea is present usually, and the fear that the cathartics will debilitate the patient by increasing the flux, and upon the fear of precipitating an intestinal hemorrhage by stimulating peristalsis. When we remember that the diarrhea is almost entirely symptomatic, caused by the irritating presence of micro-organisms and their accompaniments in the intestines or excessive or undigested food, and will subside in proportion as we are able to remove the cause, if our method of removal does not of itself produce deep-seated irritation, the danger of tearing open an artery through an intestinal ulcer is practically nil, when the stimulation of intestinal movements is as gentle as it is when such agents as the salines are used. As a matter of fact you are doing a vast deal toward arresting the fur-

ther progress of an ulcer that might later cause a perforation, by removing, more or less thoroughly, the primary cause of tissue destruction, infectious bowel contents, etc.

Strychnin is administered from the outset in 1-40 grain dose every six hours; and when there is a tendency to gradual failure of the heart, it is given more frequently. You have doubtless noticed that in some of the cases reported in this paper, I gave treatment, while in others I did not. In those cases in which I did not report treatment, the ordinary treatment which has already been outlined was given.

In conclusion, I want to say that this subject has not been thoroughly covered, nor did I intend to do so, but desired to give my experience with some cases of typhoid fever which have been of unusual interest to myself, hoping that my paper might elicit a discussion that would be beneficial to all.

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## MANAGEMENT OF THE INSANE.\*

BY N. F. RAINES, M.D.

MEMPHIS.

Physician in Charge of the Shelby County Poor and Insane Asylum

In considering the Management of the Insane I shall confine myself to my experience in caring for the insane in the Shelby County Insane Asylum. As we now have a hundred and twenty inmates, who present nearly all the types treated in more pretentious hospitals, I have thought it would be interesting to know with what success our labors are rewarded.

The theory upon which I proceed, in the treatment of the insane, is that the patient should be prevented as far as possible from brooding upon his condition. His disease is aggravated by thinking about it, and I try to place him in an environment where pleasing diversions always occupy his mind, and there is nothing to remind him of his misfortune. For this reason I protest against the name "Insane Asylum." The word asylum carries with it the hopelessness of a living graveyard, and is beyond doubt a cause which keeps incipient cases of mental aberration outside its walls when treatment would promise the very best results. Perchance "a rose

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\* Read before the Tri-State Medical Association, November, 1899.

by any other name would smell as sweet," but in this case I firmly believe infinitely better results could be obtained if the name of the "Shelby County Insane Asylum" were changed to the "Shelby County Hospital for the Insane."

It has been my ambition to make this place one of active treatment and not one of simple safe-keeping—a hospital in fact. When I say treatment I do not mean medication alone, but whatever means will restore to the normal the dethroned reason.

Mental deviations from the physiologic form must be met with measures of a psychic nature. To do this with the assurance of success we must enter the life of each and every patient. The subtle influence of a sympathetic, now cheerful, now more serious personality, on a great majority of the insane, cannot be overestimated. In spending our days among them we must be like the very sunshine to them, cheering and inspiring them with that essential element of human happiness, hope.

Patients are fully aware that the superintendent holds the key that intervenes between them and liberty, hence it is not an easy matter to insinuate himself into their friendship. The prison-keeper should be merged in the friend, willing at all times to hear the appeals of the poor sufferer.

*Attendants.* Much depends upon a judicious selection of attendants. Cleanliness, light, air, exercise, patience, kindness and liberty are the watchwords of treatment impressed on my subordinates at my monthly "cabinet meeting." The attendants are constantly with patients, the physician as often as may be. Patients seem to lose all idea of veracity, hence their statements must be taken *cum grano salis*. For instance, he tells you he has not tasted food all day, when he enjoyed a hearty dinner; his bowels may have been moved that morning, and yet he tells you he has not had a movement for a week. This is always the case with the masturbator, whose nocturnal revelries must be detected and reported by the attendant.

*Exercise.* Prolonged mental enfeeblement is usually accompanied by brain atrophy, and prolonged mental disturbance by structural brain changes. We constantly put into active exercise certain healthy forms of energy in order to diminish other morbid forms. We try to ascertain their various temperaments, and encourage whatever form of diversion or occupation is permissible. Most of the work is done by the inmates. Those who are unable to

perform manual labor are required to take daily walks beyond the boundaries of the campus, when the state of the weather will permit. This not only gives an opportunity for thorough ventilation of their apartments, and enables the patients to inhale the pure oxygen; but they become so tired they are perfectly willing to sleep in peace. They do not make night hideous with piercing screams nor require a sleeping potion to woo the drowsy god.

*Pleasures of patients.* The fly on the dome of St. Peter's can see but eight feet, yet it is all the world to him. Even so the grounds of the Asylum limit the horizon of the lunatic's world. It behooves us then to beautify and adorn this world with all the allurements of art and all the embellishments of fancy.

The question of entertainment is important, for amusement means a great deal more for the insane than for the sane, to whom applies the old saying, "All work and no play makes Jack a dull boy." It is not only intended to amuse, to break the humdrum of the daily life, but it is planned with the intention of diverting the patients from themselves, of making them forget their woes and troubles—products of the imagination of a diseased brain, but as real, as true to them, as the heat-giving powers of the sun are to us.

We have weekly parties where some dance and others engage in social conversation. Card playing is allowed. Congregational singing is encouraged in the weekly services conducted by the Pastors' Association of Memphis. Music is given the high place it deserves. If music hath charms to soothe the savage breast, much more does its soothing power influence the disordered brain.

We encourage out-door games. We have croquet grounds, and a tennis court. We have hammocks and swings scattered over the grounds, and inviting benches adorn our lawns. Reading matter is distributed whenever donated.

*Cultivating self-respect.* I do this by treating all of them with due consideration, and making it a part of their discipline that they are to treat each other with proper respect. This convinces them that they are men and women and not social outcasts, and they will, in many instances, repay in good behavior the trouble taken. The wards and hallways are kept as attractive as possible. Visitors notice this, and immediately determine that the patients are satisfied with their lot. They forget that bare walls, be they ever so clean, do not inspire with a feeling of comfort those sur-

rounded by them. A clean prison is better than a dirty one, but still it is a prison. If I could, I would have a piano or music box in every ward. As it is, I have as many pictures and potted plants as are obtainable.

*Food.* The animal and organic functions are so interwoven with the purely mental functions, that we must look on the whole man, body and mind, from the point of view of an organism whose whole needs and capacities exhibit unity and solidity throughout. When we remember that different kinds of food affect the mental development of whole races of men, it is not surprising that we look to the food supply largely to preserve this equilibrium between mind and body. Hence we carefully regulate not only the kind of food furnished, but its preparation. We especially guard against over-feeding, as patients will gorge themselves like pigs, but unlike pigs, they suffer the consequences. This dependence of the appetite for food on a sound working brain is more clearly shown in those cases that refuse all food and must be fed by force.

*Dining rooms.* Each of our six wards has a separate dining service. I cannot too strongly condemn the congregate table. The conduct of some persons at a congregate table is so unpleasant that others cannot eat while looking at it. We give the patients knives, forks, plates and soup bowls, cups and saucers. In the violent wards the tin utensils are used because the patients will hurl them about the table.

*Individual baths.* Every patient is required to take a warm bath in a separate bathtub once a week, some daily. All the writing material they ask for is furnished, but their mail is under my surveillance. The paranoiac is never stinted in paper, ink or pencil. For him letter writing is as essential as daily bread. His correspondence, of course, goes to the waste basket. The paronoiac derives much greater pleasure in writing his communications than in receiving replies to them.

*Mechanical restraint.* The total abolition of mechanical restraint in an insane hospital is an absolute impossibility. It must be used in some cases. A maniac who nightly destroys his mattress, bedding and clothes, all made of duck; a melancholiac with tendencies to aggravated self-flagellation; a patient afflicted with traumatic insanity, whose frenzy at times equals that of the epileptic maniac; a paralytic dement in his unbridled abuse toward his fellow suf-

ferers; a patient afflicted with a surgical injury and an uncontrollable desire to rid himself of the surgical dressing—without mechanical restraint there is but one way of managing these cases, and that is by an unmerciful system of drugging.

The problem simply resolves itself into a question of chemical against mechanical restraint, and I give the latter the palm of superiority without a moment's hesitation. Mechanical restraint employed by means of padded or pliable appliances is to be looked upon as a blessing in disguise in treating some cases of mental aberration. We must preserve their vital energy—mechanically if we can, chemically if we must.

*Visiting patients.* As long as a patient is confided to my care, I deem it my duty to defend him against any injurious influences, and such influences may emanate from the nearest and dearest of kin. Curiosity seekers are rigidly excluded from the violent wards. Many people are still possessed of the superstitious belief that their insane brethren are all but devoid of human semblance, terrible but terrifying freaks of cruel nature. I have repeatedly had delicate young girls to ask me, after being shown through the mild wards, "Where are those who rave?" I have flatly refused to admit some visitors who mistake our institution for a free-for-all dime museum, filled with freaks and monstrosities, open at all hours for the gratification of their morbid curiosity. Sympathy is what the poor unfortunate needs, and sympathy should be the motive leading to such visits, or, if curiosity, it should be exhibited on the way home, and not before the patients.

*Each case separate.* Individualization is the *sine qua non* in the achievement of any satisfactory results. In no department of medicine is Crockett's saw more applicable—"Be sure you are right, then go ahead." We must take time to ascertain the normal workings of the patient's brain—his heredity, temperament and habits—in order to understand its abnormalities. It is of the first importance to accurately diagnose each case. This requires a great deal of time, but no work of the superintendent could be more important. What to him would be the mere whistling of the wind, would to the patient be the whispers of a guardian angel guiding his frail bark into a haven of rest. The court has wisely built a beautiful cottage on the asylum grounds for the superintendent, thus enabling him to see more of his patients. To encourage a more intimate

relationship with my patients, I have removed from my office the chilling halo of a sanctum sanctorum. I often invite patients to a *tête à tête* in my office, where they pour out their souls to me, from which I frequently get points valuable to treatment.

*Home treatment.* As to home or asylum, I do not hesitate to decide in favor of the latter. The exceptions seem to be in the case of the wealthy who have every advantage—of trained attendants, travel and environment. It is not unusual to receive a patient described as “a holy terror” at home, and soon have him docile and obedient. He soon finds out it is useless to resist, and yields gracefully. The indulgence born of love on the part of parents and guardians is responsible for his intractability.

*Medical staff.* I have been very materially assisted in treating my patients by a medical and surgical staff of bright young physicians, surgeons and specialists of Memphis. We have several times removed the cause in ovarian and masturbational insanity, with entire relief.

*Other hospitals.* I have had much pleasure as well as profit in visiting the three hospitals in our State, the County Asylum of Davidson County, the Arkansas State Asylum, the Cook County Insane Asylum of Chicago, the Milwaukee Hospital for Insane, and the St. Louis Asylum for the Insane. I am indebted to Dr. Edward C. Runge, superintendent of the latter asylum, for many thoughts used in this paper.

*To recapitulate.* I would say we rely largely upon the environment which we establish to procure cures. Of course we resort frequently to medicine, but it varies in every case. Plenty of fresh air, good nourishing food, exercise in some cases, rest in others, fill the most important place among our curative agencies. We must love our work if we do it well, and it must not be the lukewarm love of the bread-winner, but the ardent love of the enthusiast. How can it be otherwise? Every day brings in its wake new pictures, unexpected turns, and richer for having lived the day, we pass into the next. As the child turns the kaleidoscope, bringing new pictures to his delighted vision, even so the physician in his daily rounds is delighted with the truly kaleidoscopic variety of human minds and human souls.

## SOME OBSCURE AND OBSTINATE CASES OF NEURALGIA.\*

BY HENRY POSERT, M.D.

MEMPHIS.

It is my intention in this paper to mention only such neuralgias as are either obscure in origin, atypical in their course, or obstinate to treatment. I shall also suggest some measures which I have sometimes found to be beneficial. I shall therefore leave out the various well-known forms with which we are all well acquainted.

In order to give some form of arrangement it will probably be most convenient to start at the top and finish at the bottom—i. e., beginning with the neuralgias of the head and ending with those of the foot.

Among the former I find that supra-orbital neuralgia is one of the most formidable and obstinate forms. Its cause is difficult to find. Errors of refraction have no bearing upon it—first, because they are seldom present, and second, even if corrected it does not cure. I have frequently called in to my aid the eye specialist, but without benefit. I know that often a gouty or rheumatic diathesis or malarial intoxication is assigned as a cause. But hunt as you may for it, you will seldom detect it. Even where the attacks show a certain periodicity we must be careful not to pronounce it of malarial origin. Quinin or any other antiperiodic almost never relieves it.

If I should judge from personal experience, I would make a tentative suggestion that the seasons have something to do with it. I have seen more cases in the early summer than at any other time. These cases have this peculiarity about them, that the attack begins about 10 in the forenoon and the paroxysm reaches its height at noon, when it rapidly declines. The only remedies that I found of any use were cold locally, painting the parts with guaiacol, menthol, absolute alcohol and hyoscyamin, aconite, cannabis indica and caffein internally.

Cervico-occipital neuralgia is another of this class. It is either limited to the great occipital or it may involve the four upper cervi-

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\* Read before Tri-State Medical Association, Memphis, November, 1899.



cal nerves. The pain is often very intense and the various anti-rheumatic and anti-neuralgic remedies are absolutely powerless to give relief. The only drug that is occasionally of some value is anti-kamnia in large doses.

Brachial neuralgia is, as everybody knows, a formidable and obstinate disease in a great many patients. It is often of rheumatic origin, but one form which is almost exclusively confined to the circumflex is especially obdurate. You can sometimes go through the whole gamut of anti-neuralgics without any success unless you resort to morphin, or occasionally cocain.

I have seen a number of cases of neuralgia of the chest that almost simulate angina pectoris, but have none of its characteristics. While it infringes upon regions supplied by the phrenic, it never is typical enough to call it so. It is a severe pain on the left side of the chest, just below the second rib, shooting upward, as in phrenic neuralgia, to the neck and half way down the upper arm. We might call it topoalgia as Blocq suggests, for pains in regions that are not anatomically outlined. This form, though rather troublesome and of some duration, generally gets well.

Though most dorso-intercostal neuralgias are contracted from la grippe or malaria, we sometimes meet with a form that cannot be ascribed to any of the variously known dyscrasias and which therefore resist treatment for a long time. I have found, however, that galvanism, quinin, salicylate of soda combined with small doses of codein, will sooner or later effect a cure. But there is one form of neuralgia of the back that defies all treatment. It generally extends from the sixth dorsal spine to the last. It differs from hysterical spinal irritation, that it is not upon the spine and not sensitive to light touch, but it is on the side, almost exclusively confined to the erector spinæ muscles, and is deep-seated. It is so violent that the patient will lie awake at night in intense agony. I have seen it in persons without a single hysterical stigma, without any gastro-intestinal, renal, hepatic or uterine trouble. These cases are temporarily relieved by dry heat and some of the coal-tar derivatives.

To this class of patients belong also those with backache that is not rheumatic. Faradism long continued will sometimes effect a cure.

Another form of neuralgia that I have seen especially frequent in the early fall, which makes me think that it may be due to cold,

is severe neuralgic and myalgic pain in the lower portion of the gluteal region and in the minor branches of the sciatic. It generally attacks the right side, and is often so severe that the patient is confined to bed for days and weeks. Salicylate of soda is of no avail, nor is quinin, but hot baths, phenacetin, and later faradism, overcome the trouble, though it takes sometimes weeks to do it.

Most of the visceral neuralgias, excluding of course the kind known as colic, and those that are symptoms of disease of the abdominal and female pelvic organs, are usually hysterical stigmata. Though very severe and intractable at times, they are not constant, and recur at wide intervals, in fact, all hysteric neuralgias present a remarkable obstinacy, and if not on our guard we are liable to assign to them a more serious cause.

In the lower extremities I shall only mention two of importance, one of which is now happily curable. I refer to metatarsalgia, an affection located at the fourth metatarso-phalangeal articulation. I have seen one case that was so severe that the patient consented and the doctor amputated two toes, but without any permanent relief. Fortunately these patients are cured now by a shoe suggested to Prof. Gibney by an orthopedic shoemaker, which raises the arch of the foot and relieves the bone pressure upon this branch of the plantar nerve.

The other and the last form of neuralgia that I shall mention is one that is located in the back of the foot and extends sometimes to the outer ankle. The paroxysms are very frequent and severe, and outside of rest and moist heat, there is very little to do. Occasionally a high rubber heel will end the trouble.

I repeat in conclusion that I have not mentioned those causes which we all know are found in the majority of neuralgias, such as heredity, gout, rheumatism, syphilis, diabetes, renal and gastric diseases, hysteria, etc. The treatment in such cases, where we are fortunate enough to find the disturbing element, will suggest itself. But it is no use to disguise the fact that we meet with a great many cases that elude all detection of cause. There is no doubt that it is there, but so far it has not been found, and the lightly tacking on a name to it, does not make it so. It is better to acknowledge our ignorance, so that an unbiased mind may be prepared some day to find the true cause, and let us hope, the true remedy.

Southern Express Building.

## XANTHOMA DIABETICORUM—REPORT OF A CASE.

BY M. B. HERMAN, M.D.

MEMPHIS.

Visiting Surgeon to St. Joseph's Hospital, City Hospital,  
and Leath Orphan Asylum.

Mrs. F. S., aged 42, corpulent Jewess, widow and mother of several children, consulted me on November 30 for a very obstinate eruption on the dorsum of her right hand and upper lip, of over two years standing. She stated that she had never had any illness, and that she feels perfectly well, except that she has to micturate a little too often, having to get up once or twice during the night. Her bowels are regular; no headache or nausea. She is very much annoyed by the almost constant pricking and itching sensation of the hand and lip.

In viewing the eruption at a distance, it suggests a group of small nodules with a sloughy plug in the center of each one. Upon closer examination I found a group of well-defined conical papules, from the size of a hemp seed to a small pea, some of the very larger ones having yellow centers, very firm, with dark red areolæ, and sharply bounded from the surrounding skin. On inspection no other similar lesions were discovered on any part of the body.

The eruption suddenly appeared two years ago, upon the palmar surface of both hands, and after spreading slowly gradually disappeared, and later reappeared upon the dorsal surface of the right hand and upon the upper lip, involving the mucous membrane. The lesions were exactly alike in both groups.

An examination of the urine revealed a specific gravity of 1036, with sugar, albumin, and hyaline and granular casts.

Xanthoma diabeticorum is an extremely rare disease, less than twenty cases have been recorded, and nearly all the cases which have been reported have been in men under fifty years of age.

Bowen,<sup>1</sup> in his article on "Xanthoma Diabeticorum," says the lesions are especially common on the extensor surfaces of the body; and the elbows, knees and buttocks are mentioned as favorite sites in most of the recorded cases. They have also been seen on the scalp and face, and on the mucous membrane of the mouth. Unlike the lesions of the ordinary form of xanthoma, they have never, with one exception, been found on the eyelids, nor in the flexures of joints. The eruption may appear with very numerous lesions, or with comparatively few, the latter being the more common condition.

The affection is characterized by a great rapidity of development, the lesions appearing suddenly on the extensor surfaces of the

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1 Twentieth Century Practice.

arms and legs and extending gradually to other parts. Another feature is their involution. Unlike the ordinary forms of xanthoma, after remaining stationary for a period varying from months to years, they begin to disappear rather suddenly and leave no scar. Not infrequently, however, they reappear at some future time. Diabetes is found in almost all instances, but a few cases have been described by Hutchinson, Besnier and Vidal, where this complication was not a feature. As far as I have been able to ascertain from the literature at hand, the first cases were described by Addison and Gull in 1851, and since by Robinson, Fox, Hardaway, Crocker and others.

The prognosis is favorable, the lesions disappear usually in the course of a few months, or lapse of several years, but may again appear in the course of time.

The treatment in this case has been that of diabetes—regulation of diet, increasing doses of codein sulph. and ten grain doses of potassium iodide t.i.d. Locally, I prescribed an ointment of white precipitate, thirty grains to the ounce.

At this writing the eruption has almost disappeared, but albumin, casts and a trace of sugar are still present in the urine.

Masonic Temple.

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UTILITY OF THE BLOOD CLOT IN THE TREATMENT OF WOUNDS.—R. C. McChord (vol. 28, no. 1, of the *American Practitioner and News*), writes of his results in applying the Schede principle of moist blood clot organization to lacerated wounds of the soft tissues. When the tip of a finger has been torn off, leaving not more than one quarter inch of bone exposed, he forms the oozing blood into a cap fitting over the end, aiding the formation of the clot by blowing in iodoform powder. In other parts of the body, where the soft tissues have been scooped out, the clot is molded up level with the skin, soft rubber tissue is placed over and just beyond its edge, and over this a plain gauze and cotton dressing. The effect desired by the entire dressing is to maintain a moist aseptic clot until organization shall have taken place.

# THE MEMPHIS LANCET.

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## EDITORIALS.

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### A SET-BACK FOR OSTEOPATHY.

DECISION ON OSTEOPATHY.—Harry Nelson, Plaintiff, vs. State Board of Health, Defendant, in Jefferson Circuit Court, Law and Equity Division.

Opinion by Sterling B. Toney, Judge.

#### SYLLABUS ON POINTS DECIDED.

1. The statutes of Kentucky against empiricism are constitutional.
2. Whether a school of medicine from which a party holds a diploma is a reputable medical college, is a question alone and exclusively for the State Board of Health to decide.
3. Mandamus will not lie to compel the said Board to decide a particular way. Their act is quasi judicial and is not subject to mandamus.
4. On the merits held, that the American School of Osteopathy at Kirksville, Mo., from which the plaintiff holds a diploma, is not a reputable medical college: and that the State Board of Health is right in refusing to allow the plaintiff to practice osteopathy in this State, etc., etc.

This is a suit in equity by the plaintiff, Harry Nelson, against the State Board of Health of Kentucky, to enjoin it from instituting or causing to be instituted against him a criminal prosecution, for treating or attempting to treat in this State sick or afflicted persons by the system or method of healing known and called "Osteopathy," and for practicing or attempting to practice medicine or surgery in this State according to said system.

He further avers in his petition "that he is a graduate of, and holds a diploma from, the American School of Osteopathy at Kirksville, in the State of Missouri, at which said institution he graduated December 15, 1897," and he alleges "that the said American School of Osteopathy is a reputable and legally chartered medical college, with a large and learned body of professors, and a large patronage of pupils."

In the first paragraph the defendant traverses the material allegations of the petition, and denies that the American School of Osteopathy at Kirksville, Mo., is a reputable and legally chartered medical college; denies that it has a large and learned body of professors; denies that the pupils are instructed or taught in any branch or branches of learning and science proper and necessary for the education of physicians or surgeons, or proper or necessary for the training or preparation of students for the practice of medicine or surgery; denies that its professors, or any of them, are capable of teaching any branch of science, or the principles of any branch of science or learning proper and necessary to be taught to students studying medicine or surgery; denies that the said school is entitled to the indorsement or recognition of the said State Board of Health, defendant herein.

In the second paragraph of its answer, the defendant alleges that the plaintiff, Harry Nelson, has not the education nor training legally requisite in this State for the practice of medicine or surgery, or any healing art or system of healing known to the medical and scientific world.

The defendant further alleges that the said American School of Osteopathy at Kirksville, Mo., and the system or method of healing which it proposes or attempts to teach or does teach, is not scientific nor based on scientific principles of medicine or surgery, or any other plan or method of healing the sick, or those suffering from any of the ills that flesh is heir to; but that on the contrary, the said doctrines, methods and principles for treating sick and afflicted persons, inculcated, taught and practiced at the said "American School of Osteopathy," are a complete system of charlatanism, empiricism and quackery, calculated and designed to impose on the credulous, superstitious and ignorant, and fraught with danger to the health, limbs and lives of the citizens.

The proof clearly demonstrated that the defendant, the State Board of Health, fairly and fully investigated the American School of Osteopathy at Kirksville, Mo. It sent a committee of three reputable physicians in the State to that institution, Drs. J. M. Bovine, George W. Griffith and H. A. Cottrell, to examine into its equipment, apparatus and facilities for teaching, and to see the professors, and ascertain whether they were ignorant pretenders or self-conceited visionaries or competent educators.

Dr. McCormack, the Secretary of the Board, a physician and surgeon of high character and distinction in this State, also visited Kirksville, Mo., and examined the American School of Osteopathy, and his testimony is in the record.

The proof shows that the said investigation and examination by the said Board through its said committee and by Dr. McCormack, to determine whether the said American School of Osteopathy was a reputable medical college within the statutory meaning of the term as above set forth, were conducted openly and fairly and not arbitrarily and capriciously; that the said Board, after a full and complete and exhaustive investigation, determined that the American School of Osteopathy at Kirksville, Mo., from which the plaintiff holds a diploma, was not a reputable medical college.

The plaintiff, Dr. Nelson, testifies that osteopathy cures all diseases except cancer, syphilis and consumption; that he treats Bright's disease and diabetes by manipulation, stimulating the "renic splanchnic;" that he treats diphtheria by manipulations, stimulating the vasomotor center in the back of the neck, and by putting the finger down the throat of a patient and manipulating the soft palate or fauces; that the treatment of scarlet fever, lockjaw, milk leg, varicose veins, dropsy, retention of the urine, piles, fistula in the rectum, and fissure, acute rheumatism, hipjoint disease, simple, benignant

and malignant tumor, chronic syphilis, eczema, shingles, carbuncles, bone felons, bruises, puerperal convulsions, flooding after childbirth, laceration of the cornea of the eye, is by manipulation; but he refuses to state how or in what manner this manipulation is applied.

From all the testimony in this case by witnesses for the plaintiff and defendant, it appears that the whole arcana of osteopathy, in a nutshell, is manipulation-massage.

From the testimony in the case, which I have gone over accurately, it is my opinion, that as a matter of fact the American School of Osteopathy at Kirksville, Mo., is not a reputable medical college; and that the defendant in this action, the State Board of Health, has simply performed its duty in refusing to recognize the said school or its diploma, and to license its disciples or graduates to practice their art in this State.

Out of forty-four States in the Union, it appears in evidence that only four or five States have authorized or allowed the disciples of osteopathy to practice their calling within their borders. In every State the right of an osteopath to practice his calling must depend on the statute of the particular State. In Missouri, where the American School of Osteopathy is chartered, it is enacted by statute that the laws applicable to medicine and surgery do not apply to them; and the testimony of the plaintiff's witnesses in this case shows that they do not teach nor profess to teach medicine and surgery in the American School of Osteopathy. How can it be called a reputable medical college, when its own professors repudiate and refuse to teach materia medica, and therapeutics, and chemistry, and anatomy, and physiology, and confine themselves alone to manipulation? Like the Rosicrucians of the seventeenth century, osteopathy claims to possess a secret gift or method of manipulation, which their witnesses testify cannot be learned from books, by which, however, they claim they can heal the sick. Their professors on the stand refuse to divulge what their methods or modes of manipulatory treatment are. Sorcerers and witches used love philters, incantations and magic talismans for healing the sick, but refused to divulge what the ingredients were, or how the talisman acted.

It is singular, indeed, that in an enlightened age like this such humbug schools and ignorant pretenders could find recognition by the laws of any State.

Let the injunction be dissolved and the petition dismissed.

(*Journal A. M. A.*, Jan. 13, 1900.)

STERLING B. TONEY, *Judge.*

We have here only reproduced sections of the case, but even then it is readily seen that a great deal of time and money have been expended by both sides in their efforts to obtain a favorable verdict. In extending our congratulations to the State Board of Health of Kentucky for their success in winning this suit, we do not do so with the intention of gloating over the unsuccessful plaintiff—we do so because they are right, and because we admire them for their courage in upholding a healthy medical curriculum and exposing and prosecuting charlatanry and ignorance.

The kernel in the nut is simply this: "Osteopathy" is nothing more nor less than massage. Massage, in some form or another, has been known and used as an agent in the treatment of disease

since the earliest days of medical history. It can be intelligently administered, and is then of undoubted value in certain well-selected cases; given haphazard, it is positively dangerous. The administration of the dose and the dose itself must be as carefully weighed and proportioned to the individual case as a dose of morphin or calomel, and the masseur or "osteopath" (they being one and the same) is the dispenser of this dose. The intelligent masseur, like the pharmacist, dispenses according to the doctor's prescription, and is a well-recognized factor in the therapeutic armamentarium of the intelligent physician; whereas the osteopath, without knowledge of the science of disease, makes his own diagnosis and applies his treatment—massage. This is given whether the patient has measles, scarlet fever or diphtheria, appendicitis, typhoid fever or hernia cerebri. There are only three diseases (according to their vociferations) that these people cannot cure—syphilis, consumption and cancer. Cosmetic reasons and the danger of self-inoculation may account for their professed inability to cure syphilis, and as for cancer and consumption they show a degree of honesty which is as compatible with this virtue as their countless other professions. We know something of massage in general, as well as most of the methods and movements, and we prescribe it most liberally, but we repeat that the dose must be carefully regulated to the needs of the case; if this is not done, positive harm may result. Massage is therefore not applicable in the treatment of typhoid fever, diphtheria and appendicitis, etc., etc., as the osteopaths claim. Such claims being a delusion and a snare to entrap the unwary and afflicted, it is but meet to congratulate Judge Toney for his manly verdict, and the State Board of Health of Kentucky for their courage and for their success. We also desire to throw a bouquet at Governor Candler of Georgia, who has just vetoed a bill passed by both houses of the State Legislature favoring these charlatans and impostors parading under the name of "osteopaths." More power to you, Governor!

In extending these congratulations, we have only to express one regret—viz.: that it was not Tennessee instead of Kentucky that set the good example. We therefore can only conclude with the hope that Tennessee and all other States will take unto themselves the lesson taught by Kentucky and by Governor Candler of Georgia and do their full duty. Now is the time.

M. G.



## REPORTS OF SOCIETIES.

### PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

*Regular Meeting, January 2, 1900.*

The President, Dr. Ellett, in the Chair.

Present were, Drs. Williams, Holder, Alfred Moore, Rudisill, Barton, Griswold, Crofford, Goltman, and Ellett.

Visitor, Dr. Geo. E. Pettey.

*The President* read a paper on *Fibrous Tumors of the Naso-pharynx, with Cases, Specimens, and a New Snare Attachment*. The cases were two in number.

I. Fibroma of the naso-pharynx. The patient was a boy aged 16, with a fibrous tumor filling the pharynx and both nares. A snare was put on and part of the growth slowly cut through, eight days being required to do it. Later, after preliminary tracheotomy, an attempt was made to withdraw the nasal portions into the pharynx and remove the growth by a snare, but this was abandoned on account of terrific hemorrhage. The final operation was done by Dr. John Maury, who, after preliminary tracheotomy, removed the left superior maxilla and then the tumor. The patient died. The symptomatology, pathology and treatment were extensively considered.

II. A cystic myxo-chondroma of the naso-pharynx. A young lady of 17 complained of impaired voice resonance and nasal obstruction. A pear-shaped tumor was found attached to the posterior end of the left inferior turbinated body and removed with the cold snare, after several unsuccessful attempts. There were also mulberry-like posterior hypertrophies of both inferior turbinals. No bleeding occurred. The recovery was good and there has been no recurrence.

The snare attachment is a small windlass which fits over the end of the straight canula of a snare. The ends of the wire pass through a hole in the shaft of the windlass, and by turning this the loop is tightened. It is lighter than the ordinary snare handle, and can be left in place when it is necessary to cut the tissue through slowly. It also draws the wire straight out, and not on an angle, as many snare handles do.

*Dr. Alfred Moore* had seen *Dr. Rogers* operate on a case somewhat similar to the first case reported. The patient was a middle-aged negress, and recovered.

*Dr. F. D. Smythe* mentioned the details of another such case operated on by *Dr. Rogers*, to which the essayist had referred. After tracheotomy the tumor was engaged with a snare, the wire breaking repeatedly. A strong cord was then passed around it, twisted tight, the tumor cut off with scissors, and the removal completed with a curette. Hemorrhage was profuse, necessitating packing. Shock was great, but the patient finally recovered. If he met with such a case he would attack it after removal of the maxilla.

*Dr. Smythe* read *A Brief Resumé of Cases Operated at City Hospital During Three Months Service*. Thirty-six cases were reported, comprising fibroid tumors, lithotomy, cholecystotomy, appendicitis, hernia, amputations, arthrectomy, circumcision, urethral stricture, enlarged glands, etc. Two deaths occurred in the series.

*Dr. W. C. Griswold* asked *Dr. Smythe* if he preferred suprapubic to perineal lithotomy.

*Dr. J. L. Barton* asked if he advocated the removal of syphilitic buboes.

*Dr. Alfred Moore* thought removing instead of incising suppurating glands was good practice. He asked *Dr. Smythe* if he advised amputation in cases of incurable leg ulcers, and what did he term incurable cases. He had seen necrotomy in these cases yield good results.

*The President* asked if *Dr. Smythe* really meant that the petrous portion of the temporal bone was necrosed in the case of supra-auricular abscess which he reported.

*Dr. M. Goltman* asked what was the condition of the medulla of the bones above the line of amputation in the ulcer cases.

*Dr. Edwin Williams* asked if fibroids are more common in negro women than white, and why.

*Dr. T. J. Crofford* said more hard fibromas were seen in negroes than whites, and as a rule they are accompanied by diseased appendages. It is probably to the nutritive changes accompanying the diseased appendages that the fibroids are due.

*Dr. Smythe* said that in syphilis there is no bubo (suppurative) unless there is mixed infection, in which case he removes the glands;

chronic leg ulcers are hardly ever susceptible of cure, but temporary improvement only. The medullary cavities were so affected in some cases as to necessitate going above the joint (knee), and then in two cases that of the femur was far from healthy. He favors suprapubic cystotomy as easier—no opening is left, the prostate is not injured, there is no danger of causing impotency, and large stones cannot be removed by the perineal method. In some old cases, which are to be drained, it is best to do the operation in two steps, and drain over a granulating surface which does not readily absorb pus, etc. The fibroids were mostly in negroes. In four the ovaries were diseased. In one case, one ovary was left, after puncturing two small cysts, the other being removed.

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*Regular Meeting, January 16, 1900.*

The President, Dr. E. C. Ellett, in the Chair.

Present were, Drs. R. H. Mitchell, McKinney, Barton, Crofford, Buford, Reilly, Alfred Moore, Ellett, Williams, Krauss, Griswold, F. A. Jones and Haynes.

*Dr. Richmond McKinney* read a paper on *The Treatment of Deviated Nasal Septa*. This condition is present in 75 per cent. of all cases, and is due to traumatism in infancy. The deviation may be single or sigmoid, and affect the cartilage, bone, or both. Symptoms are usually due to deflection of the cartilaginous portion. The Asch operation is preferred, and was described. Briefly the operation consists in making cross cuts through the septum, freely mobilizing the fragments and holding them in place by tubular splints till healed—i.e., about five weeks or more. The writer prefers to use local anesthesia, and in five cases has had four good results.

*Dr. F. A. Jones* saw two of Dr. McKinney's cases, one being very bad, the nasal obstruction interfering a good deal with the patient's health, which was much improved by the operation.

*Dr. G. G. Buford* asked if adenoids and other causes of nasal obstruction might not cause deflection of the septum.

*The President* has had some experience with the Asch operation, and more with the older methods of operating, which he found unsatisfactory. Trimming off the convexity of the septum does not as a rule restore nasal breathing. He has recently removed the whole inferior turbinated body from the obstructed side of a patient

who declined the Asch operation, and the result was very good. Thorner has recently called attention to the fact that not only is breathing restored, but often a crooked nose is made straight by putting the septum back in the median line. As regards the anesthetic, general anesthesia permits free manipulation and a more thorough operation, and he prefers it in all nasal operations as severe as this.

*Dr. McKinney* said that adenoids, etc., might act as a cause of deflected septum. He has found cocain anesthesia satisfactory, and it is easier to operate with the patient sitting up and assisting your efforts.

*Dr. F. A. Jones* read a paper on *Rectal Lesions as Seen in the Negro*. Mathews says that hemorrhoids are rare in the negro, but the writer finds them very common and more aggravated, as a rule, than in the white. The negro eats a diet which taxes his digestive apparatus, produces congestion and therefore hemorrhoids. Stricture of the rectum is common and usually syphilitic. In twenty-one cases, twenty were in females, and the one in the male malignant. Surgical treatment is the only one of value in strictures. Fistula in ano is common in negro men, and usually occurs in tubercular subjects. Pruritus ani and seat worms are common. The latter may cause vulvo-vaginitis. Proctitis and chronic diarrhea are common. Colitis is rare.

*Dr. J. L. Barton* asked if cancer of the uterus was seen in the negro or mulatto. He had not seen it in the former.

*Dr. T. J. Crofford* said in the last three weeks he had seen three cases of cancer of the uterus in negro women, and each year sees two or three.

*Dr. W. C. Griswold* has had a similar experience, and thinks cancer and other tumors and hemorrhoids common in the negro.

*Dr. J. H. Reilly* thinks the experience of these gentlemen should be put on record, as it is at variance with that of other observers.

*Dr. G. G. Buford* has seen cancer of the uterus frequently in negro women. In his pension work he has examined 3000 or 4000 negro men and has seen very many cases of hemorrhoids, but only three or four of rectal stricture. The applicants are old, and possibly those with stricture do not live to be old.

*Dr. Alfred Moore* asked if the diagnosis in the cases thought to be malignant had been verified with the microscope.

*Dr. Crofford* relies, in cancer of the uterus, on the clinical and macroscopic features for diagnosis. In late cases degenerative changes obscure the histologic picture.

*Dr. Jones* agrees with *Dr. Crofford* on this point.

*Dr. J. H. Reilly* mentioned a case in which a diagnosis of cancer of the cervix was made and operation advised, and the microscope showed the changes to be degenerative only. The value of reports is enhanced by including microscopic findings.

*Dr. Crofford* mentioned an opposite case, where a growth pronounced benign by a competent microscopist turned out to be malignant.

*Dr. Buford* presented photographs of a case of elephantiasis of the scrotum. (To be published in the *Memphis LANCET*.)

*Dr. R. H. Mitchell* reported a *Case of Puerperal Eclampsia*. The patient was a primipara aged 16 and had been delivered by a midwife. He saw her after the child was born, placenta undelivered, and the patient in convulsions. Chloroform was used to arrest the convulsions, twenty grains of chloral and ten drops of veratrum viride and two drops of croton oil given. Hypodermoclysis was also used. The patient had a small, hard, rapid pulse, and bleeding was therefore not advisable. The kidneys were inactive. Diaphoresis was induced, and the bowels moved from the croton oil and salts, but the convulsions were not arrested and the patient died in fifty-six hours. This is the second fatal case he has seen in two months. The mortality is 20 to 30 per cent.

*Dr. Barton* has seen some cases occurring ante-partum and relieved by inducing labor.

*Dr. Buford* has seen three cases, all of which were bled and all recovered. In one case this was the only treatment used.

*Dr. Reilly* has recently seen a case occurring at the seventh month of pregnancy. In spite of bleeding, saline transfusion and the induction of labor, the woman died.

*Dr. Mitchell* said death was due to retained toxins and not to hemorrhage.

*Dr. Wm. Krauss* suggested, on theoretical grounds, bromide of potash, to decompose the toxins and form soluble carbamid, which is more easily eliminated.

*Dr. E. E. Haynes* has had four cases with two deaths. The plethoric cases, with high tension pulse, are suitable for bleeding, and

these patients are much more apt to get well than the anemic, illy-nourished ones. In his last case the convulsions did not begin until a week after delivery, when the patient's nutrition was improved and the blood pressure raised.

*Dr. Edwin Williams* mentioned continuous rectal irrigation with salt solution in these cases.

*Dr. Alfred Moore* reported *An Obstetrical Case* in which he had used rubber gloves with such satisfaction that he proposes to use them habitually hereafter.

*Dr. F. A. Jones* reported a *Case of Parenchymatous Nephritis* with sudden edema and great dyspnea. The patient was sent to the hospital, where tracheotomy was proposed, but the patient died before it could be done.

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## PROGRESS OF MEDICINE.

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VAGINAL CELIOTOMY.—The *Alabama Medical and Surgical Age* abstracts A. Laphorn Smith's article from the *American Journal of Obstetrics*. He had operated eleven times by the vaginal route, concluding that—

1. Vaginal celiotomy is indicated in retroversion with fixation, in minor diseases of the ovaries and tubes, and in small fibroid tumors of the uterus. But in the author's experience the vaginal method of freeing the retroverted adherent uterus is, on the average, more difficult than the abdominal method, and vaginal fixation is not so reliable in curing the retroversion as is ventrofixation.

2. If the uterus be movable and there are no adhesions to be broken up, one is not justified in opening the peritoneal cavity, either by the abdomen or the vagina, in order to shorten the round ligaments. In such cases Alexander's operation is easy, quick, safe and more reliable. The author has had no failures in his last one hundred cases.

3. For the removal of pus tubes the operation by the vagina is more difficult than by the abdomen in all cases excepting those in which the uterus is removed at the same time. When the uterus is split in half and each half is removed with its corresponding ovary and tube, when clamps are used, the vaginal operation is

easier than the abdominal, in which ligatures are employed. The vaginal operation is a little safer on account of the drainage which it affords, but on the other hand it offers more risk of injuring the ureter. The author is opposed to the removal of the uterus, even when both ovaries and tubes have been removed, owing to the bad moral and physical results; and he is opposed to the use of clamps as compared with ligatures, because, although easier and quicker, the clamps prolong the convalescence, owing to the bruising of the nerves in the broad ligaments.

4. For the removal of chronically-inflamed ovaries and tubes, vaginal celiotomy has the following decided advantages:

a. It is less dangerous, because the intestines are not exposed to the air, or to bruising by the hands, or to infection through diseased tissues passing over them so much as when the latter are removed by the abdomen.

b. Vaginal celiotomy is less painful, the incision in the vagina causing almost no pain, while the abdominal incision and stitching are exceedingly painful. In vaginal celiotomy morphin is rarely required; in abdominal celiotomy it is cruel to deprive the patient of it, although we know that her convalescence is prolonged by its use.

c. There is no telltale scar after vaginal celiotomy, which is sometimes a matter of great moment to young single women who intend to marry. The presence of the scar has to be explained, and the patient is suspected of having been unfitted for marriage by the removal of both ovaries, when in reality one or both of the ovaries remain.

d. The danger of hernia, although the author has had no case of hernia during the last three years, owing to his method of suturing and leaving in the silkwormgut either permanently or at least a month, and he considers this accident entirely preventable, yet for those who meet with it, its possibility should have great weight in balancing the merits of the two operations. There is no hernia after vaginal celiotomy.

5. Much good conservative work on the ovaries and tubes, and even on the uterus, can be performed by vaginal celiotomy with almost no pain or risk to the patient. The uterus and appendages can be brought out at the vulva through an opening in the anterior vaginal wall, and cysts can be excised or burned out; one-half of one ovary can be amputated and the remaining bivalvular flaps

neatly brought together with fine silk or catgut; the closed tubes can be opened, or a piece of the pavilion removed, and a probe passed into the uterus, and the mucous and peritoneal layers of the remainder of the tube brought together with interrupted catgut sutures; and the small fibroids, not larger than the normal uterus itself, can be cut out and the hole in the wall of the uterus closed with two or three rows of fine sutures. But it is very dangerous to open up closed tubes as long as there is any active inflammation or infection going on, because by so doing we break down the wall of defense made by nature around the infected tubes to save the general peritoneal cavity from invasion.

6. Tubal pregnancy, before rupture and not later than the sixth or eighth week, can be readily removed by vaginal celiotomy; the author had one successful case as compared with twelve successful cases by the abdomen. But vaginal celiotomy is contraindicated when the pregnancy has advanced to twelve weeks, or has ruptured into the abdomen. In several of the author's cases the vermiform appendix was diseased and adherent to the tube, for the removal of which abdominal celiotomy was essential. In several other of the author's cases the abdomen was full of clots as high up as the liver, and the fetus was floating among the bowels higher than the umbilicus; these cases could not have been successfully operated on by the vagina.

7. In general terms, all cases in which the trouble is small in size and located low down, can and should be operated on by vaginal celiotomy, while everything large and located high up, should be reserved for abdominal section.

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CANCER OF THE UTERUS AND ITS EARLY DIAGNOSIS.—The *Medical Record*, December 9, 1899, gives the following abstract of a paper read by Dr. Thos. S. Cullen before the Medical Society of the County of New York:

He said that there were three different kinds of mucous membrane in the uterus, viz.: (1) that of the vaginal portion; (2) that of the cervix; (3) that of the body; and hence there were three definite varieties of carcinoma, and only three, in the uterus. His object in coming here at this time was to try and impress upon those present that there was no difficulty in making a diagnosis of carcinoma of the various portions by an examination of the scrapings.



A number of excellent plates were exhibited in order to give a proper conception of the histology of the normal uterus. The presence of glands at a considerable distance from the mucosa was not, as had been supposed by some, an indication of malignancy. An idea that had gained quite general acceptance, was that the mucous membrane of the uterus was shed at each menstrual period, but some recent studies had shown that such was not the case. Plates were exhibited showing one very characteristic appearance of carcinoma of the cervix, viz., myriads of minute finger-like processes. One of the plates presented demonstrated conclusively that the glands in the body of the uterus took no part whatever in squamous carcinoma of the cervix. Rarely in cancer of the cervix was there an extension into the lymphatic glands. The cells in cancer of the cervix were usually rather large, and the lymph radicles rather small. In the breast, on the other hand, there were small epithelial cells and large lymph channels. It was probable that the growth must extend far out into the broad ligament before extension into the lymphatic glands could take place. In one case, in which there was a squamous carcinoma of the cervix associated with pregnancy, the woman had been kept under observation until term, and then both uterus and child were removed. The child had lived four or five months, and had then succumbed to some intercurrent trouble. The mother was still alive and well, though the operation had been done two years ago. A very curious and interesting feature of the case had been the presence of a normal decidua formed on the lip of the external os, as well as in the uterus. In one case, in which a diagnosis of malignancy had been made from an examination of the scrapings, after removal of the uterus it had been impossible even for an expert to distinguish, from the external appearance, between this and the normal uterus. However, on cutting open the uterus, a malignant growth had been found. In such a case diagnosis without microscopic examination would have been impossible. The glandular growth of the cervix, the speaker said, was the most malignant type of carcinoma found in the uterus. True erosion of the cervix was characterized by loss of substance and disappearance of the epithelium, but a large number of so-called erosions were nothing more than eversions of the normal mucous membrane. As the blood vessels in this portion of the mucous membrane were covered only with a layer of epithelium the surface appeared red.

When such a surface was treated, as in the old days, by repeated application of iodine, the result was a thickening of the epithelial covering and an appearance resembling healing of the surface, so that it looked like the outer portion of the cervix. This had led the physician to suppose that the "erosion" had been healed; but in a few weeks the thickened epithelium would be exfoliated, the blood vessels would once more show through the thin epithelium, and the physician was then led to believe that the "erosion" had returned. Occasionally the hardening and dilating of the glands of the cervix would give an appearance suspiciously like carcinoma. In cases of adeno-carcinoma of the body of the uterus it was impossible to say definitely, by palpation, that malignant disease was present; indeed, such might be the case and still the uterus be diminished, rather than increased in size. In this class of cases one must depend upon microscopic examination for a diagnosis. In all cases in which the patient was between thirty and sixty years of age, and there were hemorrhages, and the diagnosis was not clear, the uterus should be curetted or a portion of the cervix removed. The diagnosis of malignancy having been made, no time should be lost in removing the entire uterus. It should not be forgotten that in securing the scrapings the curette must be systematically applied to the whole interior of the organ, otherwise the diseased portion might be passed by.

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THE APPENDICITIS QUESTION AGAIN. — "To operate, or not to operate, in appendicitis" is still one of the absorbing questions of the hour. The physician proper still leans favorably to the expectant plan of treatment, while the operator urges removal of the appendix in all cases as being the only method of cure. The surgeon, however, weighs the pros and cons for operation in each case, and governs his actions accordingly. Of course each patient, and every attack of appendicitis, must be considered as an entity, and no steadfast rules can be set down to govern all cases. Certain clinical facts have been demonstrated so often in the course of this affection that broad lines of action may be formulated upon them. Briefly stated these are as follows:

1. As we can never tell from the nature of a previous attack of appendicitis what will be the character of the next seizure, or when, if ever, it will occur, a patient who has had one mild attack

should have this clinical observation clearly stated to him, and the decision for or against operation left with him. If a patient has had more than one attack, the probability of a recurrence is much stronger, and the surgeon may even urge an operation in the interval, the burden of responsibility, in case of refusal, being placed upon the shoulders of the patient. Under this head belong all those cases in which, after the subsidence of the acute seizure, the parts apparently return to their normal condition. Should adhesions of the appendix to neighboring structures have occurred, which in themselves cause pain and interference with the general well-being of the individual, there would exist a further indication for surgical interference.

2. If, during the course of an acute inflammation of the appendix, there is manifested a distinct tendency to a regression, we may safely wait for the subsidence of the attack, and then consider the patient as outlined above. Such regression is determined by careful observation of the triad of symptoms, which in relative importance are: (a) Pulse rate; (b) local pain and rigidity of the abdominal muscles; (c) temperature elevation. If the pulse rate steadily declines and the other two symptoms become less marked, the inflammation is regressing, and operative attack can be deferred.

3. But if there is a distinct progression as indicated by an increasing rapidity of the pulse, and more marked local pain and rigidity, irrespective of temperature elevation, operation is urgently demanded.

4. Abscess cavities call for immediate careful evacuation.

5. General peritonitis demands immediate operative interference, except when the general condition of the patient forbids a formidable procedure. Such latter patients do better if treated expectantly, and often enough these desperate cases improve, and then their subsequent surgical treatment depends upon the local condition.

These general principles of action will be found to govern the vast majority of cases. But one must never forget that appendicitis does not always run a typical course, and in the atypical cases the internist and the surgeon both must rely on their past experiences to enable them to decide for or against operation.—*Editorial in Medical Record*, December 30, 1899.

**THE PATHOLOGY OF LOBAR PNEUMONIA AS A BASIS FOR TREATMENT.**  
Dr. Andrew H. Smith read a paper before the N. Y. Academy of Medicine, Nov. 2, 1899, on this subject. In using the term "pneumonia" he said that he desired to restrict it to the form variously designated as lobar, fibrinous, or croupous, the form which, in typical cases, was ushered in abruptly by chill and fever, and which, after from four to nine days, if the patient was to recover, ended suddenly by crisis. Pneumonia, he said, was not an inflammation of the lung, although pneumonitis could be produced at will in one of a great many ways. Inflammation, suppuration, and even gangrene might be produced, but it would not be pneumonia. There was one thing which introduced into the parenchyma of the lung would always produce pneumonia, and that was the pneumococcus. These facts served to differentiate sharply between pulmonary inflammation and pneumonia. It was not enough to admit the infectious nature of the disease and define pneumonia as an inflammation excited by the presence of a specific parasite. The parasite was unquestionably there, but it did not excite an inflammation. In pneumonia the parenchyma of the lung did not suffer; at most there was a certain amount of desquamation of the epithelium. There was nothing left to represent the results of inflammation. The tremendously active process that had gone on in the lung vanished, and left no trace behind it. For this we had to thank the special nutrient circulation provided by nature. At the same time, and in the same area, one could see the action of the right heart completely suspended, and that of the left heart going on actively. In the pneumonic lung, the capillaries which were the continuations of the pulmonary artery were completely thrombosed, and this thrombosis extended back to the heart. If the entire lung were involved the thrombosis would extend back into the bifurcation of the pulmonary artery. The blood supply from the bronchial arteries, on the other hand, was completely free from obstruction. In pneumonia we had to deal with a process of germ culture going on in a culture medium, each air cell acting as a tiny test tube, and filled with this culture medium. The complicated manifestations completing the clinical picture of pneumonia were epiphenomena. Two of these epiphenomena were of extreme importance, constituting singly, or together, the chief menace of life, viz.: (1) Infection of the system by toxins formed in the lung, and (2) the embarrassment of the lungs

from the exudation in the air cells. From the first arose a host of manifestations dependent upon toxemia; from the second, we had the ever present danger of failure of the right heart.

*Treatment.* Heretofore the treatment of pneumonia had been far from satisfactory, pneumonia destroying more lives than any two other acute diseases put together. Within the past decade, however, there had seemed to be the dawning of a better era. The problem before us was first of all to arrest or inhibit the growth of the pneumococcus, bearing in mind the peculiarities of the organ in which the disease process took place. It should be remembered that the life of the organism was short, not exceeding ten or twelve days in artificial cultures. Another interesting fact was, that this was one of the most sensitive of all germs, its growth being arrested by very slight changes in its surroundings. If we could impregnate the blood sufficiently with a substance inimical to the growth of the pneumococcus, there would be a chance of forestalling the local process. The local process was always a spreading one, so that it seemed perfectly feasible to prevent the spread of it to other cells than those first invaded. Long before the microbic theory of pneumonia had been understood, or even thought of, calomel had been a favorite remedy, although given with the idea that it was an anti-plastic. The older practitioners rarely had the hardihood to treat a case of pneumonia without a mercurial. In 1878 Dr. Mary Putnam Jacobi had reported the result of an investigation into the action of the so-called "sedative dose" of calomel in pneumonia. The results from this treatment, which had been a favorite one with the late Dr. Leaming, had been quite remarkable. Quinin, though a feeble antagonist to other than malarial germs, was known to have a decidedly beneficial action in pneumonia when given in rather large doses. This was not surprising when one considered how thoroughly this remedy pervaded the whole system. Dr. J. S. Thacher, at his suggestion, had made a number of experiments in the laboratory of the Presbyterian Hospital, regarding the effect of chloroform on the pneumococcus, and these had abundantly substantiated what had long been known from clinical observation concerning its powerful influence in pneumonia. Creosote had been highly lauded by a number of observers as a useful remedy in pneumonia. It had been given by the mouth and in enemas. The carbonate of creosote had been found to saturate the blood readily

without irritating the stomach, and without giving rise to poisonous or other untoward effects. A very remarkable series of twenty-two cases of pneumonia occurring in Austria among miners had been reported. All of these had been treated with large doses of sodium salicylate—gr. cxx daily. All of these patients had recovered, and in not one had the disease terminated by crisis.—*Medical Record*, November 18, 1899.

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A METHOD OF TREATMENT FOR THE RESTORATION OF ENTIRE TIBIÆ, NECROTIC FROM ACUTE OSTEOMYELITIS.—Cushing (*Annals of Surgery*, October, 1899) reports an instructive case in which he was able to restore the entire tibia after an acute osteomyelitis. The method employed is described by his summary as follows:

The indications are: To save the patient's life, relieve pain, and by immediate operation to establish free drainage. The medullary cavity should be opened, pressure relieved, and infection checked. If the bone is killed, as it usually and rapidly is in a few days, it should be removed. The most favorable time for its removal is when the periosteum and granulation tissue are in their most active generative stage, but before the process of calcification of the bone trabeculæ has shut the sequestrum within the compact, dense shell of involucrum. This point is to be determined by frequent examinations of sections of the periosteum with the microscope. It is shown by the presence of numerous fibroblasts, osteoblasts, and small trabeculæ in which lime salts are beginning to be deposited. Clinically, it can be recognized by the slight crackling sensation as the periosteum is incised, due probably, to the crushing of the trabeculæ by the knife. The periosteum at this stage resembles granulation tissue in color, density, and vascularity. There is no macroscopical appearance of ossification. Bone will be formed from this elastic, flexible periosteal layer.

This stage in this case was probably reached in the seventh or eighth week of the disease. At this stage the necrotic bone should be removed by incising the periosteum in the long axis of the leg and shelling out the sequestrum. The periosteal sheath remaining should be closed by suture, leaving a solid cord or mass of periosteum buried in the center of the leg when in its most active bone-producing condition. If areas of calcification of any extent or thickness are found adherent to the inner surface of the periosteal sheath, they

should be dissected off. The soft parts and skin superjacent can be closed by suture. The utmost care and most efficient means should be used to render the operation an aseptic one, for primary union is important. The new bone is formed rapidly, apparently in eighteen or twenty-four hours, when the operation is done at the time above indicated. At this time ossification is so advanced that the new bone is rigid. If the operation is done too early the periosteum is injured, apparently, and its growth interfered with. If too late, a rigid, bony involucrum makes the removal of the sequestrum more difficult and forms a cavity which is very difficult to close. It is demonstrated by the radiograph that the medullary cavity is re-formed in the new bone. The shaft of the bone is easier to restore than the epiphysis.—*Am. Jour. Med. Sciences*, Jan., 1900.

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THE WIDAL REACTION IN TUBERCULOSIS.—S. H. von Ruck (*Journal of Tuberculosis*, Oct., 1899) in some sixty tests of the Widal reaction in four classes of cases, viz.:

1. Blood from well-marked typhoid;
2. Blood of patients not having nor having had either typhoid or tuberculosis;
3. Blood of tubercular patients who never had typhoid;
4. Blood of tubercular patients with a previous history of typhoid;—

obtained the following results:

With the typhoid blood a complete reaction occurred in fifteen minutes.

In cases of those who never had typhoid nor tuberculosis there was no sign of reaction in the first fifteen minutes. The clumps which formed later were all very small, and in none of them, even after an hour, was there cessation of motion; while in the vast majority of bacilli which remained free in the field, motility continued more or less active.

With the blood of tubercular patients who never had typhoid modified reactions were obtained. The reaction began to take place within fifteen minutes but was more complete in less than an hour.

In the cases of tubercular patients with a past history of typhoid a modified reaction was obtained, more pronounced the more recent the typhoid.

From the results of the experiments above recorded the author concludes :

1. Inasmuch as with the blood of tubercular patients who had never had typhoid fever a modified reaction was obtained; and as no reaction occurred with the blood of individuals free from tubercular infection and with no previous history of typhoid; it may not be unreasonable to presume that such change takes place in the blood of the former, not occurring in that of the latter, which in a manner exerts a certain degree of protective influence against infection with the Eberth bacillus.

2. A true Widal reaction is not to be obtained with the blood of tubercular patients; but what may be termed a modified reaction does occur quite uniformly, the difference being one of time and degree only.

3. The modified reaction seen with the blood of persons suffering from tuberculosis in no way detracts from the value of the Widal reaction as applied in typhoid fever. However, the results shown should, in the use of this diagnostic means for typhoid, lead those to be cautious who are not familiar with what constitutes a true Widal reaction.

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REPORT OF A FEW CASES OF CHRONIC EMPYEMA OF THE ANTRUM OF HIGHMORE—OPERATION BY CALDWELL-LUC METHOD.—A. W. De-Roaldes (*N. Y. Med. Jour.*, Jan. 6, 1900) reports five cases as above. In making a diagnosis of antral empyema he relies on the transillumination test by Heryng's lamp. Treatment of chronic antral empyema has been very unsatisfactory, and this operation devised by Dr. Geo. W. Caldwell, of New York, and popularized by Dr. H. Luc, of Paris, promises better results. The object is to make a free opening into the nose, and not to leave any opening between the antrum and the mouth.

The technique of the operation was carried out as follows :

The patient having been chloroformed, the inferior turbinate body of the affected side was attacked with a cutting forceps and its anterior third removed, after which the nasal fossa was firmly packed with gauze and attention turned to the opening of the antral cavity through the canine fossa. The upper lip being everted and well retracted by an assistant, the incision was made through the soft parts, beginning just below the gingivolabial fold near the



frenum anteriorly and extending posteriorly in a horizontal direction back to the root of the first molar tooth. The periosteum was included in the incision and both flaps were detached from the bone and retracted so that the bony anterior wall was laid bare. A chisel was then used to make an opening into the cavity at the deepest point in the canine fossa, and by means of bone forceps this opening was enlarged so that the finger could be readily introduced and extended anteriorly almost to the nasal process of the maxilla. This gave free access to the cavity for the introduction of instruments and inspection with the eye and finger. The antrum was found to be lined within by a thick growth of polypoid tissue that almost obliterated its cavity. Quite a free hemorrhage occurred at the stage where the antrum was opened and this tissue attacked with a curette; but firm pressure by means of a gauze pack quickly checked the flow, and the scraping was systematically continued until the cavity had been deprived of all its interior lining and nothing remained except the bare bony walls. This done, a temporary gauze pack was introduced into the cavity and the drainage way into the nose established as follows:

The pack removed from the nose, a finger was introduced and placed upon that part of the antral wall corresponding to the resected part of the turbinate. With this as a guide, a chisel was placed upon the corresponding point on the side of the cavity and used to break away a part of the bony wall, the opening being made sufficiently large to permit of the free passage of the finger. Any remaining shreds of mucous membrane left on the nasal side were cut away with a biting forceps, so that the artificial hiatus thus made would be in nowise obstructed.

It only remained now to suture over the wound made in the canine fossa and cut off all communication from the mouth. With the lips well retracted and a properly-curved strong needle employed no very great difficulty was experienced in carrying out this step of the procedure. Rather fine catgut was employed in interrupted suture, the mucous membrane and the periosteum being caught up together and brought into firm apposition over the breach in the bony wall. Before the cavity was finally closed, however, the gauze packing was removed, iodoform powder insufflated, and a fresh strip introduced through the nose, so as to avoid any difficulty in its removal at the first dressing a few days later.

On account of the bleeding it is advisable to defer the turbinotomy till the last step of the operation. Cure follows this treatment in four to six weeks.

THE PRESENT STATUS OF CANCER, AND OUR DUTY TOWARD ITS VICTIMS, is the title of the presidential address delivered by McGannon before the Middle Tennessee Medical Society (*Medical and Surgical Bulletin*, December, 1899). Faith in the parasitic theory of cancer is based upon the following summary of the results already made:

1. The existence of certain bodies in cancer tissues, these being found both in the cells and outside of them.
2. They are found in the active, growing part of the tumor, and not due to degeneration.
3. Cancer is the only neoplasm in which they are found.
4. They take stains entirely different from the other elements of the growth.
5. These bodies have been isolated, and grow in culture media. They have also been modified by passing through animals, and have again been transferred to suitable living animal tissue, and have produced a disease with the characteristics of cancer.
6. They are transferable by inoculation, as shown by divers reports of cases of accidental and intentional transference from one situation to another in the same individual, and from one individual to another.
7. Occurrence in families, usually attributed to heredity, but which may be due to environment and to the contagiousness of the disease.
8. The existence of epidemics, as reported by various observers, can only be explained by infection.
9. Cancer houses, so called—that is, dwellings in which cancer has been observed to occur independent of the families occupying them, thus removing the theory of heredity.

Certain well-demonstrated facts in regard to the origin of cancer must still be recognized—the first of which is *age*; this usually begins with the time that the body cells begin to deteriorate more than they develop—i. e., between 35 and 40 years; developmental organs, as the mamma and uterus, are the favored sites. The second is *traumatism*; this is most probably incidental as a cause. The

third is *climate* and *locality*; low and wet lands seem to favor the death rate from cancer. The fourth factor is *prolonged irritation*, and the author lays much stress on the prolonged irritation of un-repaired cervixes, and advises that every means be employed to secure an early diagnosis, as only in that stage, when the disease is local, can a cure be effected.

The microscopic examination of curettings is open to serious error, as these may not contain any of the suspicious tissue. Clippings from the affected area should be taken.

As to cancer being on the increase, the author is of the opinion that this is to a great extent apparent; so many quacks treat as cancer any sort of *granuloma*, and the cures effected by faith healers and such gentry cannot by any possibility have been cancer. Instances are related showing the frequency of unrecognized cancer in the practice of some physicians whose cases are diagnosed too late for radical relief, which puts operation in disrepute among the laity.

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THE PRINCIPLES OF THE TREATMENT OF FRACTURES BY SYSTEMATIC MOVEMENTS AND MASSAGE WITHOUT APPARATUS FOR IMMOBILIZATION. Lucas-Championnière (*Med. News*, Jan. 6, 1900) says that moderate movement favors the repair of fragments of a bone. Where movement is permitted the callus will be greater in quantity, will be more solid, and will be more rapidly thrown out. Any large amount of movement will inhibit the process of repair, or at least seriously interfere with it. Moderate movement preserves the vitality of the limb and preserves the suppleness of the articulations, the muscles, and the tendons. It entirely prevents the occurrence of any muscular atrophy. In every case, therefore, in which moderate movement does not threaten to cause the occurrence of deformity, the limb should not be immobilized. On the contrary, an attempt should be made to keep up passively if not actively the movements that are necessary to the vitality of the parts.

In addition to this passive movement, massage, which especially favors the repair of traumatic lesions of muscles, tendons, ligaments, and articulations, may always be applied in practice on the single condition that the parts involved in the fracture do not thus become the subject of untimely interference with repair. We may apply massage to fractures immediately after an accident on condition

that this massage be of the special kind that can be performed while the fractured member is properly supported. Massage, if undertaken in the ordinary manner, or if administered too energetically, would certainly result lamentably. The massage for a fracture ought to be applied to all parts of the limb, along the muscles, over the ligaments, and upon the hemorrhagic effusions, but never just over the site of the fracture nor directly upon the fractured ends of the bone. The massage should consist of gentle, repeated pressure always in the same direction from the periphery of the limb toward the trunk. It should be sufficiently prolonged. The length of time spent at massage will depend somewhat upon the character of the lesion and the sensitiveness of the patient, but at least a quarter of an hour to twenty minutes once a day should be devoted to it.

The massage should never give pain. It should always be followed by an attempt at passive movements of the joints of the limb, which procedure must also be accomplished without pain.

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**MASTOIDITIS; THE IMPORTANCE OF EARLY SURGICAL TREATMENT.** McCaw (*N. Y. Med. Journal*, Dec. 30, 1899) says that there are some who advocate a more conservative plan of treatment, but they are greatly in the minority, and the tendency is toward more radical measures. From his clinical experience and the literature of the subject, he is forced to the conclusion that where there is undoubted mastoid involvement the only safety lies in early operation, before the patient passes the border line of safety into the dangerous grounds of meningeal and cerebral complications.

In answer to the question, when shall we interfere surgically? He should say, apply that invariable rule of surgery that wherever there is pus it should be evacuated. His observations, well borne out by the almost universal opinion of the best authorities, prove that sagging of the postero-superior canal wall is indicative of the presence of pus. If that is true, the natural deduction follows that when this condition is present it calls for surgical interference in the patient's behalf.

In mastoiditis following the chronic otorrhea there is no ground for discussion. The only thing left for us to do is to deal with it radically and at the very earliest moment, for it is the danger signal, and if unheeded is sure to lead to disastrous results. For a physician to stand by and wait for the catastrophe of which he has been forewarned is little short of criminal negligence.

*Conclusions.*

1. In threatened mastoid involvement and in the mild acute cases the conservative plan of treatment should be first tried for at most a week or ten days, unless dangerous symptoms arise.

2. Operative interference should be instituted: (a) in acute cases where there is sagging of the postero-superior canal wall; (b) where the infection is of a virulent nature; and (c) in all cases complicating chronic otorrheas.

RELATIVE FREQUENCY OF IRITIS IN SYPHILIS AND RHEUMATISM, OBSERVED IN THREE THOUSAND CASES.—Brunson (*Ophthalm. Record*, November, 1899) found a total of 48 cases of iritis in 1500 cases of syphilis, which is a little more than 3 per cent. of the entire number of cases examined, and a total of 23 cases of iritis in 1500 cases of rheumatism examined, which is about 1½ per cent. of all the cases of rheumatism.

As a general rule we may accept the following table to differentiate between iritis caused by syphilis, and iritis caused by rheumatism:

*Rheumatism.*

1. History of acute or chronic rheumatism, or some evidences of uricacidemia.
2. Photophobia, lachrymation, and pain well marked.
3. Condylomata never observed on iris.
4. Iris often very bright.
5. Exudative changes slight.
6. Posterior synechiæ long, thin, and not pigmented.
7. Very little tendency to formation of pigment on the anterior capsule of lens.

*Syphilis.*

1. History of syphilis either acquired or hereditary.
2. Photophobia, lachrymation, and pain not well marked.
3. Condylomata present in every case.
4. Iris often very dull.
5. Exudative changes very extensive.
6. Posterior synechiæ short, broad, and pigmented.
7. Very marked tendency to formation of pigment on anterior capsule of lens.

In his experience with this class of patients, he states that he does not agree with most authorities on the subject in regard to the absence of chorio-retinitis in rheumatism, as he has seen this complication occur many times in rheumatic iritis.

**ASEPTIC CATHETERISM.**—Beck (*Medical News*, Jan. 6, 1900). Catheterism is the most important procedure in the treatment of the genito-urinary tract. As it has the dignity of a surgical operation, it should be viewed from a strictly surgical standpoint and should especially be preceded by the same preliminary precautions, at least in principle. These precautions consist in the sterilization of the instruments, the hands of the surgeon, and the field of operation.

There are three most important virtues required in catheterism: Thorough cleanliness, extreme delicacy, and much patience. The same principles should be upheld if the patients are instructed to catheterize themselves. From a scientific standpoint, the trusting of such a surgical procedure to a layman is to be deplored, and such risky commissions should be resorted to only under the most pressing circumstances. Soft catheters should be chosen, and the fact that their usefulness is soon destroyed by repeated boiling should not be allowed to carry much weight in such a serious consideration.

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**A PLEA FOR THE MORE FREQUENT DIGITAL EXPLORATION OF THE UTERINE CAVITY.**—Wm. E. Swan (*New York Medical Journal*, vol. 70, no. 16) reports two cases of hemorrhage from the uterus due to polypi—one of which had been curetted many times, but the polyp was not found until the uterine cavity was explored with the finger, when it was easily removed with forceps. The other case suffered from profuse menorrhagia and metrorrhagia, for which hysterectomy was performed, under the impression that it was malignant. On incising the organ a small polyp was found to account for the hemorrhages.

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**DR. L. L. MEYER**, of Memphis, reports a case of an interesting and curious accident. He was called to see a baby four months old, which had been very fretful for several days. An examination revealed that the child's middle toe was swollen, which was due to a human hair wound tightly around it. The hair had cut through the tissues, almost completely amputating the toe. After removal of the hair, recovery was prompt.

## BOOK REVIEWS.

Any medical book can be obtained through the *Lancet* at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

**A Manual of the Diagnosis and Treatment of the Diseases of the Eye.** By Edward Jackson, A.M., M.D., Emeritus Professor of Diseases of the Eye in the Philadelphia Polyclinic; formerly Chairman of Section on Ophthalmology of the American Medical Association; Member of American Ophthalmological Society; Fellow and Ex-President of the American Academy of Medicine. With 178 illustrations and 2 colored plates. W. B. Saunders, Philadelphia, 1900. Price, \$2.50.

At this time a book on diseases of the eye must possess some distinctive feature to warrant its existence. The present volume justifies its publication by being a manual of small size, and probably better adapted to the needs of the student than any other American textbook. Condensation is a dangerous business, but few could say so well so much in a small space. There is little room given to the discussion of theories, but facts are clearly stated in a way to carry the information in a most direct manner. The tone of the whole work is worthy of its distinguished author, and bears the impress of his conservative and sound judgment. Those familiar with his attainments—and this must include all ophthalmologists—must regret that he has not essayed a more voluminous work. We do not agree with him that cold, to be most effective, must be *applied continuously*, since it has been shown that the contraction of the vessels which it aims to produce gives way to dilatation after three or four hours, at which time it is best to intermit the application for an hour or more. Nor do we believe he has chosen well the best method of advancement of ocular muscles. We especially recommend this book to students. That it is issued by Mr. Saunders is a sufficient guarantee of its excellence from a mechanical point of view. Especial mention should be made of the valuable bibliographic table following each chapter.

**Refraction and How to Refract.** Including Sections on Optics, Retinoscopy, the Fitting of Spectacles and Eye-Glasses, etc. By James Thorington, A.M., M.D., Adjunct Professor of Ophthalmology in the Philadelphia Polyclinic and College for Graduates in Medicine; Assistant Surgeon at Wills Eye Hospital; Associate Member of the American Ophthalmological Society; Fellow of the College of Physicians of Philadelphia; Member of the American Medical Association; Ophthalmologist to the Elwyn and the Vineland Training Schools for Feeble-minded Children; Resident Physician and Surgeon to the Panama Railroad Company at Colon (Aspinwall), Isthmus of Panama, 1882-1889, etc. 200 illustrations, 13 of which are colored. Philadelphia: P. Blakiston's Son & Co., 1900. Price, \$1.50.

In no locality is the standard for careful refraction higher than in Philadelphia, and no man is a better exponent of careful refraction than Dr. Thorington. The book is an elaboration of his lectures on the subject at the Philadelphia Polyclinic, and begins at the beginning. The elementary facts concerning light and optics are set forth tersely and distinctly and without mathematic perplexity, and are illustrated with a number of well-made diagrams. No book advocating careful refraction can consistently do so without advocating the liberal use of mydriatics, which the author very energetically does. In this we fully agree with him. The merits of the different mydriatics (cyclo-

plegics) are carefully given, atropia being much preferred on excellent grounds. We note the preference given for "full correction," a custom which the author acknowledges to have its limitations. Thomson's chromo-aberration test is fully described, the subject being clearly illustrated with two colored plates. This method is probably nowhere else so satisfactorily considered. We note an absence of any reference to insufficiency of the oblique muscles, and use of "irises" instead of "irides." We are heartily in accord with the author's estimate of the value of the ophthalmometer, as *suggestive only*; and his advice, never to prescribe on its findings alone, will certainly meet with the approval of all who are familiar with the instrument, excepting only a few enthusiasts who ought to know better and probably do. Retinoscopy, as was to be expected, is regarded with the high favor which it deserves, and the author's opinion on this is that of one who speaks authoritatively. The book is one which should be in the hands of every ophthalmologist. The beginner will be by it started in paths from which his experience will never oblige him to deviate, and the older hand will find in it much of value and interest. It is the most admirable guide to careful and conscientious refraction with which we are familiar, and reflects credit on its author, as well as on the "static refraction" of Philadelphia. We would especially commend it to those afflicted with "Manhattan myopia." The publisher has furnished excellent presswork and illustrations.

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## BOOKS AND PAMPHLETS RECEIVED.

*Operative Surgery.* By Joseph D. Bryant, M.D., Professor of the Principles and Practice of Surgery, Operative and Clinical Surgery, University and Bellevue Hospital Medical College; Visiting Surgeon to Bellevue and St. Vincent's Hospitals; Consulting Surgeon to the Hospital for Ruptured and Crippled, Woman's Hospital, and Manhattan State Hospital for the Insane; Fellow of the American Surgical Association; former President of the New York Academy of Medicine; President of the New York State Medical Association, etc. Volume I. General Principles, Anesthetics, Antiseptics, Control of Hemorrhage, Treatment of Operation Wounds, Ligation of Arteries, Operations of Veins, Capillaries, Nervous System, Tendons, Ligaments, Fasciæ, Muscles, Bursæ and Bones, Amputations, Deformities, Plastic Surgery. This volume contains seven hundred and forty-nine illustrations, fifty of which are colored. New York. D. Appleton & Co. 1899.

*A Manual of the Diagnosis and Treatment of the Diseases of the Eye.* By Edward Jackson, A.M., M.D., Emeritus Professor of Diseases of the Eye in the Philadelphia Polyclinic; formerly Chairman of Section on Ophthalmology of the American Medical Association;



Member of the American Ophthalmological Society; Fellow and Ex-President of the American Academy of Medicine. With one hundred and seventy-eight illustrations and two colored plates. Philadelphia. W. B. Saunders. 1900.

*Refraction, and How to Refract, including Sections on Optics, Retinoscopy, the Fitting of Spectacles and Eye-Glasses, etc.* By Jas. Thorington, A.M., M.D., Adjunct Professor of Ophthalmology in the Philadelphia Polyclinic and College for Graduates in Medicine; Assistant Surgeon at Wills' Eye Hospital; Associate Member of the American Ophthalmological Society; Fellow of the College of Physicians of Philadelphia; Member of the American Medical Association; Ophthalmologist to the Elwyn and the Vineland Training Schools for Feeble-minded Children; Resident Physician and Surgeon to the Panama Railroad Co., at Colon (Aspinwall), Isthmus of Panama, 1882-1889, etc. Two hundred illustrations, thirteen of which are colored. Philadelphia. P. Blakiston's Son & Co. 1900.

*Saunders' Question-Compends, No. 11. Essentials of Diseases of the Skin, including the Syphilodermata.* Arranged in the form of Questions and Answers. Prepared especially for students of medicine. By Henry W. Stelwagon, M.D., PH.D., Clinical Professor of Dermatology in the Jefferson Medical College; Physician to the Department for Skin Diseases, Howard Hospital; Dermatologist to the Philadelphia Hospital, etc. Fourth edition, thoroughly revised. Illustrated. Philadelphia. W. B. Saunders. 1899.

*A Textbook of the Practice of Medicine.* By Jas. M. Anders, M.D., PH.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine in the Medico-Chirurgical College, Philadelphia; Attending Physician to the Medico-Chirurgical and Samaritan Hospitals, Philadelphia, etc. Illustrated. Third edition, revised. Philadelphia. W. B. Saunders. 1899.

*A Practical Treatise on Materia Medica and Therapeutics.* By Roberts Bartholow, M.A., M.D., LL.D. Professor Emeritus of Materia Medica, General Therapeutics and Hygiene, in the Jefferson Medical College of Philadelphia; formerly Professor of Materia Medica and Therapeutics and of the Practice of Medicine in the Medical College of Ohio; Fellow of the College of Physicians of Philadelphia; Member of American Philosophical Society; Honorary Fellow of Royal Medical Society of Edinburgh; Honorary Mem-

ber of Societe Medico-pratique de Paris, and of various National, State, and County Medical Societies. Author of a Treatise on the Practice of Medicine; of a Treatise on Medical Electricity; of a Manual of Hypodermatic Medication; of the Russell and Jewett Prize Essays, and Prize Essays of the American Medical Association and of Rhode Island Medical Society, etc. Tenth edition, revised and enlarged. New York. D. Appleton & Co. 1899.

*Saunders' Question-Compend, No. 4. Essentials of Medical Chemistry, Organic and Inorganic.* Containing also Questions of Medical Physics, Chemical Philosophy, Analytical Processes, Toxicology, etc. Prepared especially for students of medicine. By Lawrence Wolff, M.D., Demonstrator of Chemistry, Jefferson Medical College; Physician to the German Hospital, of Philadelphia; Member of the German Chemical Society, of the Philadelphia College of Pharmacy, etc. Fifth edition, thoroughly revised by Smith Ely Jelliffe, M.D., Ph.D., Professor Pharmacognosy, College of Pharmacy of the City of New York; Clinical Assistant, department of Neurology, Columbia University, New York. Philadelphia. W.B. Saunders. 1899.

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## NEWS AND NOTES.

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DR. F. S. RAYMOND has been re-elected County Health Officer, a merited reward for good service.

DR. G. G. BUFORD, of this city, is arranging for an excursion to the Paris Exposition for physicians, their families and friends.

DR. JOHN I. TAYLOR, an eye and ear surgeon, formerly of this city, but later of Jackson, Tenn., committed suicide on January 17 at Jackson.

MR. GEO. HESSEN, apothecary to the City Hospital, has been removed, and Mr. West appointed in his place. The charges against Mr. Hessen have not been made public.

**\$100,000 TO STUDY CANCER.**—By the will of Caroline Brewer Croft, who died in England nearly two years ago, a sum amounting to nearly \$100,000 has been placed in the hands of the corporation of Harvard University, to be used in the investigation of cancer.

THE January number of the LANCET contained a clipping from the *New Orleans Medical and Surgical Journal* on Glycosuria, without crediting the source. This is our first, and we hope, the only lapse, and occurred from it having been pigeonholed at the time and not re-read before it went to the printer.

THE proof of the book review of Barker on the Nervous System in the December LANCET, failed to reach the writer before it went to press, and, as a result, several errors crept in. "Lewellyn" appears instead of "Lewellys," and Ramon's name is chopped in two; it was meant to read Santiago Ramon (y Cayal).

THE INTERNATIONAL MEDICAL ANNUAL FOR 1900, E. B. Treat & Co., will soon appear. We take pleasure in making this announcement, since the Annual gives in a rather small volume, a very complete summary of the year's progress. The small price asked for the book is calculated to place it within every one's reach. A full review of the book will appear later.

THE following standing committees have been appointed for the Memphis Medical Society for 1900:

Committee on Credentials—Dr. Heber Jones, Chairman.

Dr. E. M. Holder.

Dr. Alfred Moore.

Censors—Dr. E. E. Haynes, Chairman.

Dr. M. Goltman.

Dr. G. G. Buford.

AT the meeting of the Southern Surgical and Gynecological Association in New Orleans, December 5-7, 1899, the following officers were elected:

President—Dr. A. M. Cartledge, of Louisville.

Vice-Presidents—Dr. Manning Saunders, of Charleston.

Dr. W. P. Nicholson, of Atlanta.

Secretary—Dr. W. E. B. Davis, of Birmingham.

Treasurer—Dr. W. D. Haggard, Jr., of Nashville.

The next meeting will be held in Atlanta, Ga., in November, 1900.

IN the case of Eichberg vs. Sale, a verdict of \$1500 was rendered for the plaintiff. The suit was against Dr. E. P. Sale, of this city, for a bad result from a fractured humerus. Be it said to the credit of the Memphis physicians that none of them could be brought to

testify adversely to the defendant. The prosecution rested on flimsy evidence, mainly the patient's own statement, and the verdict is generally regarded as unjust. The LANCET hopes that the appeal, which will be taken, will justify Dr. Sale's management of the case.

**COMPETITION FOR THE AMERICAN MEDICAL ASSOCIATION MEDAL.**—At the meeting of the American Medical Association, held June 4, 1897, it was resolved to restore the former policy of the Association in favor of offering annually a gold medal for meritorious scientific work. The committee for this year, consisting of Drs. George M. Gould of Philadelphia, E. Fletcher Ingals of Chicago, and T. W. Huntington of Sacramento, Cal., desires to direct attention to the following rules governing the competition:

The commercial value of the medal shall be \$100.

A standing committee on prize medals, consisting of three members of the Association, shall be elected by the Business Committee.

The competing essays shall be typewritten or printed and shall bear no mark revealing their authorship; but instead of the name of the author, there shall appear on each essay a motto, and accompanying each essay shall be a sealed envelope containing the name of the author and bearing on its outer surface the motto of identification. No envelope is to be opened by the committee until a decision has been reached as to the most deserving essay, and the other essays have been returned to their respective owners. The committee shall have authority to reject and return all essays in case none have been found worthy of the Association medal. Competing essays must be in the hands of the committee not later than March 1, 1900.

**TO THE MEMBERS OF THE MEDICAL PROFESSION IN THE UNITED STATES.**—The cause of humanity and of scientific progress is seriously menaced. Senator Gallinger has again introduced into Congress the Bill for the "Further Prevention of Cruelty to Animals in the District of Columbia," which he has so strenuously and misguidedly advocated in the last two Congresses. It is Senate Bill No. 84. Twice the Committee on the District of Columbia has, also unfortunately and misguidedly, reported the bill with favorable consideration. It is speciously drawn to seem as if it were intended only in the interest of prevention of cruelty to animals, but the real object is twofold: 1, to prohibit vivisection and, 2, to aid the passage of similar bills in all the State legislatures.

It hardly needs to be pointed out that this would interfere with or even absolutely stop the experimental work of the Bureau of Animal Industry and the three Medical departments of the Government, the Army, the Navy, and the Marine-Hospital Service. The animals themselves might well cry out to be saved from their friends. No more humane work can be done than to discover the means of the prevention of diseases which have ravaged our flocks and herds. All those who raise or own animals, such as horses, cattle, sheep, pigs, chickens, etc., are vitally interested in the preservation of their health and the prevention of disease.

The inestimable value of these scientific researches as to the prevention and care of disease among human beings it is superfluous to point out. Modern surgery and the antitoxin treatment of diphtheria alone would justify all the vivisection ever done.

As my attention has been called officially to the introduction of the bill, I take the opportunity of appealing to the entire profession of the country to exert itself to the utmost to defeat this most cruel and inhuman effort to promote human and animal misery and death and to restrict scientific research. It is of the utmost importance that *every physician* who shall read this appeal shall *immediately* communicate especially with the Senators from his State, shall also invoke the aid of the representatives from his or other districts in his State, and by vigorous personal efforts shall aid in defeating the bill.

It is especially requested also that all of the national, State and county societies, at their next meeting, take action looking toward the same end. If regular meetings are not soon to be held, special meetings should be called. Correspondence is invited from all those who can give any aid.

The Committee on the District of Columbia consists of Senator Jas. McMillan, Michigan, Chairman, and Senators J. H. Gallinger, New Hampshire; H. C. Hansborough, North Dakota; R. Redfield Proctor, Vermont; J. C. Prichard, North Carolina; Lucien Baker, Kansas; C. P. Wetmore, Rhode Island; C. J. Faulkner, West Virginia; Thos. F. Martin, Virginia; Wm. M. Stewart, Nevada; and Richard Kenney, Delaware. Personal letters may be addressed to them or to other Senators. Petitions should be addressed to the Senate of the United States.

W. W. KEENE, M.D.

President American Medical Association.

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APPRECIATE  
THE  
CONFIDENCE**

placed in us by the medical profession and public, and we assure both that we guard it zealously. Our every effort is to deserve more and more the continued good faith and patronage of both. Our past success is due entirely to our painstaking and careful service, combined with the use of the BEST goods obtainable. On this basis we shall continue to do business.

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GONORRHEA AND VULVO-VAGINITIS IN CHILDREN.—Dr. Nosotti (*British Med. Journal*, Sept. 30, 1899) speaks well of protargol in the treatment of gonorrhea at all stages. The solutions used varied from  $\frac{1}{2}$  per cent. in the early days to 2 per cent. in the later stages. No ill-effects were noticed, no epididymitis or other secondary inflammation. It was more satisfactory as an injection than permanganate of potash. It was found very useful in the vulvo-vaginitis of children. Protargol causes a free elimination of epithelial and pus cells of gonococci from the urethral mucous membrane.

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DR. J. H. MULHALL, of St. Louis, a well-known laryngologist, suicided on January 11. The act was prompted by the sufferings of an incurable nervous affection.

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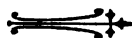
The Dios Chemical Co., of St. Louis, Mo., manufacturers of the standard remedies: Dioviurnia, uterine tonic; Neurosine, neurotic; Sennine, antiseptic dry dressing; Palpebrine, external eye diseases, will mail to physicians free of charge their new combination paper weight and mirror on receipt of 10 cents to pay postage.

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THE NEW ORLEANS POLYCLINIC.—*Thirteenth Annual Session* opens November 20, 1899—closes May 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, Louisiana.

## The Laboratory of the Board of Health.

Exchange and Front Streets, Memphis, Tenn.

### *To the Medical Profession:*

The Board of Health makes the following examinations free for the city Physicians: Exudate and sputum for diphtheria and tubercle bacilli, typhoid and yellow fever blood reaction and malaria organisms, well and cistern water and milk.

For other work I will charge the following fees: Urinalysis, chemical and microscopical, \$2.00; including staining for tubercle bacilli, \$3.50. Quantitative for sugar, \$2.50. This covers the work necessary to make a conscientious diagnosis, and for *life insurance*. Pus for gonococci and other microorganisms, \$2.00. Feces for parasites, eggs, etc., \$5.00. Blood for typhoid and yellow fever reaction, for malaria organisms, diphtheria exudate and sputum for tubercle bacilli, \$2.00. Other examinations for poisons, etc., according to labor and material consumed.

FELIX PAQUIN, Ph. B.,

Chemist and Bacteriologist of the Board of Health.  
Member of the Association of Official Agricultural Chemists.

THE NEW LOCAL ANESTHETIC, "NIRVANIN."—August Luxemburger (*Phila. Monthly Med. Journal*, July, 1899) states :

In number 49, 1898, of the *Munchener medicinische Wochenschrift*, Prof. Einhorn and Dr. Heinz, in a paper entitled "The Continuation of the Researches with Orthoform," call attention to a new anesthetic discovered by them, the hydrochlorate of diethyl-glycoll-p-amid-o-oxybenzoic-methylester, which they call Nirvanin, and whose various merits seem to warrant a lasting and prominent place among the hitherto recognized anesthetics.

A one-tenth per cent. solution of Nirvanin administered after the well-known infiltration method of Schleich produced an analgesic swelling, the analgesia lasting about five minutes. He gives the average duration as increasing with the percentage of the solution—thus, one-fifth per cent. twelve minutes, one per cent. twenty minutes, two per cent. twenty-three minutes. It was found that the analgesia from one-fifth per cent. outlasted the swelling by several minutes, therefore dismissing the thought of paralysis of the sensory nerve fibers by solitary edema as a cause for the anesthesia. He was able to remove small growths by the aid of a one-fifth solution without pain. After a long series of experiments he arrives at the following conclusions :

1. Nirvanin, in the concentration used in his experiments, is non-poisonous.
  2. It is preferable to cocain for the production of infiltration and regional anesthesia.
- 

THE *American Gynecologist and Obstetrical Journal* of July, 1899, in its Therapeutic Forum, reports a series of cases treated with Gray's Glycerine Tonic Compound, and draws the following conclusions :

1. The remedy in question is an efficient stomachic ; it engenders appetite, facilitates digestion, promotes assimilation of food, and overcomes atonic conditions of the mucous membrane and muscular coat of the stomach.
2. Because of its powers of increasing assimilation of food, it is a valuable adjunct to the treatment of general debility, anemia, and nervous exhaustion.
3. It checks fermentation in the stomach and stimulates inactive gastric functions ; hence its value in selected cases of chronic gastric catarrh, associated with fermentation and deficient motor and secretory powers of the stomach.



# DYSMENORRHEA

---

**DIOVIBURNIA** is the reliable remedy in dysmenorrhea (invaluable in congestion), relieving pain and regulating the uterine functions, possesses **antispasmodic** properties which are exerted especially on the uterus and appendages. **Unexcelled** in leucorrhea, amenorrhea, menorrhea, menorrhagia. Vomiting in pregnancy, threatened abortion, miscarriage, **parturition** and **subinvolution**. In female neurosis combine **Neurosine** (Dios) two parts to **Diovi-burnia** four parts.

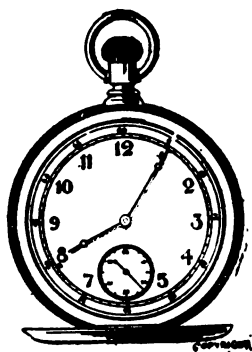
Should there be any physician who has not received samples, we will furnish full size bottles free, they paying express charges.

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**Formula:** Stimulates Digestion and Promotes Assimilation.

Each fluidounce contains:

Hypophosphite Soda.....	2 grains.
" Lime .....	1½ "
" Iron .....	1½ "
" Quinine.....	¾ "
" Manganese.....	1½ "
" Strychnine. ....	1-16 "

Dose: One to four fluidrachms.

**PINT BOTTLES, \$1.00**

This preparation does not precipitate, retains all the salts in perfect solution.

## Manufacture also **ROBINSON'S**

**Hypophosphites with Wild Cherry Bark**, a very Valuable Combination.

**Lime Juice and Pepsin**, Valuable Digestive Agent.

**Phosphoric Elixir**, Modified Form Chemical Food.

**Elixir Paraldehyd**, Hypnotic, Sedative, Anodyne.

**Flexner's Iron Preparations.**

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# THE GREAT FACT IN MODERN MEDICINE:

*"The Blood is the Life,"*

*And Where Nature fails to make Good Blood,*

**WE CAN INTRODUCE IT.**

**BOVININE** is Bovine Blood Unaltered from the Arteries of the Bullock;  
The Universal Auxiliary of Modern Medicine and Surgery,  
and the TRUE "ANTITOXIN" of Healthy Nature.

In the more enlightened progress of Modern Medicine, "Blood-letting" has given place to Blood-getting.

Aye! Get Good Blood—but How? Not by the Alimentary Process. It has already failed to do its work (else the patient would not be sick); and in acute disease must not even be allowed to do the work it can. Stimulate as you will, the whole sum of the patient's alimentary power when fully forced into play, is unable to keep up the nourishing and supporting contents of the blood. There is absolutely but one thing to do; and, thank God, that can be done, usually with success, as ten-thousand-fold experience has proved. That one thing is this: where Nature fails to PRODUCE good and sufficient Blood, WE CAN INTRODUCE IT from the arteries of the sturdy bullock, by the medium of BOVININE.

The vital activity of this living blood conserve rests on no man's assertion: it speaks for itself, to every properly equipped physician who will test its properties microscopically, physically, or therapeutically.

## **TRY IT IN PRACTICE.**

**TRY it in Anæmia**, measuring the increase of red cells and hæmoglobin in the blood as you proceed, together with the improving strength and functions of your patient.

**Try it in Consumption**, with the same tests from week to week.

**Try it in Dyspepsia** or Malnutrition of young or old, and watch the recuperation of the paralysed alimentary powers.

**Try it in Intestinal** or gastric irritation, inflammation, or ulceration, that inhibits food itself, and witness the nourishing, supporting and healing work done entirely by absorption, without the slightest functional labor or irritation; even in the most delicate and critical conditions, such as Typhoid Fever and other dangerous gastro-intestinal diseases, Cholera Infantum, Marasmus, Diarrhœa, Dysentery, etc.

**Try it per rectum**, when the stomach is entirely unavailable or inadequate.

**Try it by subcutaneous injection**, when collapse calls for instantaneous blood supply—so much better than blood-dilution!

**Try it on Chronic Ulceration**, in connection with your antiseptic and stimulating treatment (which affords no nourishment) and prove the certainty and power of topical blood nutrition, abolishing pus, stench, and PAIN, and healing with magical rapidity and finality.

**Try it in Chronic Catarrhal Diseases**; spraying it on the diseased surfaces, with immediate addition of peroxide of hydrogen; wash off instantly the decomposed exudation, scabs and dead tissue with antiseptic solution (Thiersch's); and then see how the mucous membrane stripped open and clean, will absorb nutrition, vitality and health from intermediate applications of pure bovinine.

**Try it on the Diphtheritic Membrane** itself, by the same process; so keeping the parts clean and unobstructed, washing away the poison, and meanwhile sustaining the strength independently of the impaired alimentary process and of exhaustive stimulants.

**Try it on anything**, except plethora or unreduced inflammation; but first take time to regulate the secretions and functions.

**Try it on the patient** tentatively at first, to see how much and how often, and in what medium, it will prove most acceptable—in water, milk, coffee, wine, grape, lemon or lime juice, broth, etc. A few cases may even have to begin by drops in crushed ice.

A New Hand-book of Hæmotherapy for 1898, epitomizing the clinical experience of the previous three or four years, from the extensive reports of Hospital and private practice. To be obtained of

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# THE MEMPHIS LANCET.

VOLUME IV.

MARCH, 1900.

No. 3

## ORIGINAL ARTICLES.

### FRACTURES OF THE LOWER EXTREMITIES.\*

BY JERE LAWRENCE CROOK, A.M., M.D.

JACKSON, TENN.

District Surgeon I. C. R. R., Jackson, Tenn.

It is a generally accepted fact that in societies such as this the most benefit is to be derived from papers relating to the author's own experience, rather than from those containing lengthy excerpts from textbooks. The title of this paper is a practical one, and I shall endeavor to make the contents correspond by reporting some cases of my own and conclusions therefrom.

Fractures of the lower extremity may naturally be considered under three heads—those of the hip, thigh and leg. I will report four cases of

#### **Fractures of the Neck of the Femur.**

Case I. J. C., aged 23, single, Jackson, Tenn. While engaged in repairing lines of the electric light company, he touched a live wire, which gave him a terrific shock, burning his hands and causing him to fall a distance of fifteen feet to the ground. The diagnosis made under chloroform was fracture of the femoral neck, and Buck's extension with eighteen pounds weight was applied, reinforced with sandbags to assist in holding limb in position.

The weight was gradually lessened after the fourth week and dressings removed at end of ninth week. There was ligamentous union only, patient being unable to bear any weight on limb. He was again put to bed with sandbags and no weight and kept

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\* Read before the West Tennessee Medical Society, at Milan, Dec. 14, 1899.

there four weeks longer, when he was allowed to move about with crutches. One year after his injury union had so far progressed that he could walk very well with a cane and limped only slightly without one. There was no shortening.

Case II. Mrs. W. D., aged 55, married, Jackson, Tenn. Walked to the window to throw away some pea hulls and wrenched her body in such a way as to throw her to the floor. She did not consider herself seriously hurt, though she could not walk, and had to be carried to the bed. I did not see her until second day after the injury, when upon examination I found shortening and eversion of the limb. Following my usual custom chloroform was administered, when the fracture was readily diagnosed and the limb set as in Case I, using an iron bed and a hard mattress. The limb healed slowly but firmly, with half-inch shortening, and she walked in about eight months, with a cane.

Case III. Mrs. J. H. S., aged 68, married, Whiteville, Tenn. While on a visit to Jackson, sustained a fractured hip in getting off street car, being thrown to the ground by a sudden start of the car. This fracture was not diagnosed at first visit, nor until the third day, there being no shortening or eversion of the limb. On account of her age, persistent pain about joint and history of a fall, I decided to anesthetize patient and make the diagnosis certain. Having provided an iron bed, hard mattress and weight and pulley apparatus, patient was chloroformed and an impacted fracture was readily found. The extension apparatus was applied in the usual way, and patient made an uneventful recovery, with firm union and no deformity.

Case IV. Mrs. C., aged 60, married, Jackson, Tenn. While crossing street, stepped down off sidewalk suddenly and fell to the ground. She was lifted and carried into her house, and I visited her at once. Great pain about hip joint, shortening and eversion were the symptoms present. She was made as comfortable as possible, that night, and the next morning under anesthesia, the limb was treated, as in the other cases. Result good, firm union and no shortening.

#### **Fractures of the Shaft of the Femur.**

Case I. James N., aged 28, single, Jackson, Tenn. In a collision on the I. C. R. R., he jumped from engine cab to save his life and struck a pile of crossties, sustaining a double fracture of right femur at lower and middle thirds, compound fracture of tibia and fibula, and compound fracture of radius and ulna at wrist. The fractures were accurately determined and reduced and temporarily dressed under anesthesia and he was brought from Russell, Tenn., to Jackson, and removed to his home. Buck's extension was applied to the right leg and temporary dressings reapplied to the other fractures. In the course of a week a plaster-of-paris dressing was applied over the adhesive plaster dressing. This procedure I had never seen suggested in connection with extension by weight and pulley, but the exigency of this case demanded both plaster and extension as the femur was completely fractured in two places, six inches apart. At the end of five weeks the plaster-of-paris was renewed on account of the shrinkage in size of the limb and consequent loosening of the cast. At the end of ten weeks all dressings were removed, and perfect union with no deformity nor shortening had occurred.

Case II. J. C., aged 4, Jackson, Tenn. While playing about the house with his brother was thrown down with such force as to fracture his thigh. He was anesthetized, when the fracture was readily made out and a plaster-of-paris cast was applied from ankle to groin, and patient placed on a firm mattress. Cast was removed in six weeks, when the result was all that could be desired—firm union and no shortening.

Case III. W. D., aged 6, Jackson, Tenn. While playing about his mother's tombstone in the cemetery, a portion of the stone was dislodged, falling on the little fellow's thigh. He was brought home and I was hurriedly summoned. The fracture was readily diagnosed at upper third, but in order to properly reduce the fracture the patient was anesthetized, the dressings being in readiness, and another fracture was found near the knee joint. Buck's extension was applied reinforced by a plaster-of-paris cast, as in Case I. The case progressed well, though it was very difficult to keep the patient in position. At the end of the eighth week firm union was found to be established, and I was much gratified a few weeks after to see my little patient as sound as ever, with no evidence of his injury apparent in his gait.

#### Fractures Below the Knee.

Case I. H. L. B., aged 30, single, Jackson, Tenn. Stepped from the doorway of his store to the pavement, wrenching his foot in such a way as to fracture the fibula near ankle joint, rupturing the external lateral ligament. Temporary dressings of binder's board molded for the back of the leg and lateral splints of the same material were applied, followed in the course of ten days by a plaster-of-paris cast. Results : healing was slow, patient limped for several weeks after removal of cast. Final result perfect.

Case II. J. B., engineer I. C. R. R., Jackson, Tenn. Jumped from train while in motion at Fulton, Ky. Diagnosis of sprained ankle made by local surgeon. I saw him four days later in Jackson, when the limb was found to be much swollen and the patient suffering greatly. Careful examination elicited crepitation and preternatural mobility on the fibular side and the diagnosis of Potts' fracture was made. This being a case where there was a difference of opinion, it was necessary, in order to convince the patient that his leg was broken, for me to make firm pressure at the site of fracture. The patient then emitted a howl of pain, and admitted my diagnosis. The limb was encased in hot lead and laudanum lotion, placed in binder's board splints, followed in course of two weeks by a plaster cast. Result perfect.

Case III. J. L., aged 26, single, near Jackson, Tenn. Sustained a Potts' fracture by getting foot caught in gin machinery. Dressing; temporary splints of binder's board followed by plaster cast in two weeks, as in Case I. Result entirely satisfactory.

Case IV. W. W., aged 8, Jackson, Tenn. While attempting to jump on rear of delivery wagon was thrown to the ground, sustaining a Potts' fracture. Case treated as I, II and III. Result perfect, in much shorter time than either of the others, on account of youth of the patient.

Case V. Compound fracture tibia and fibula. This was the left leg of the first patient reported in cases of Fractures of Thigh. Rigid asepsis and antisepsis were practiced here, and to that in a large measure must certainly be attributed the good result. The limb was shaved, thoroughly washed with bichloride of mercury solution, 1-1000 strength, and the wound irrigated with the same solution. It was dressed as often as circumstances demanded, and plaster cast was not applied until the skin wound was healed, which was at end of fourth week. He was kept on specific treatment during entire period of his disability. All of his six fractures healed perfectly and in eight months after his injury he was able to resume his position as conductor on the I. C. R. R., where he is today.

## 112 FRACTURES OF LOWER EXTREMITIES.

Case VI. C. P., aged 22, single, Jackson, Tenn. While attempting to board a switch engine of N. C. & St. L. Ry., fell and struck leg on step, producing compound fracture of both tibia and fibula. In this case also, as in Case V, the most rigid asepsis and antisepsis were practiced and the skin wound made to heal before applying the plaster cast. Result perfect.

Case VII. Mrs. C., aged 58, on November 5, 1899, while walking about the room in her home, stepped on the hearth, which was lower than the floor, and wrenched her foot in such a way as to fracture the fibula and rupture the external lateral ligament. She is a very large woman, weighing about two hundred pounds, and when her foot careened to the outside she still endeavored to maintain her equilibrium. This threw her entire weight on the tibia, resulting in a comminuted fracture into the ankle joint. I have never seen a case where so severe an injury was produced by so slight a cause. The limb was dressed with a posterior metallic splint, and lateral splints of binder's board very thickly padded with absorbent cotton. The swelling and tension were so great that the dressings were removed a few hours later, the leg bathed in hot water, and dressings reapplied with hot lead and laudanum lotion on absorbent cotton next to the limb. It was dressed for three days in like manner, but on the fourth day blisters appeared over the site of the fracture on both sides, and the skin assumed a dark, threatening aspect. The blisters were opened and the entire leg bathed in hot bichloride lotion and compresses wrung out of the same solution applied, with bichloride gauze next to the skin. This dressing was repeated every day for a week before we were sure we could save the limb, the patient meanwhile having been placed on strong tonics, as an additional precaution against gangrene. On December 8th, a small ulcer which had formed over internal malleolus was curetted and probed and a small piece of dead bone removed. The wound was freely irrigated with bichloride solution and packed with gauze. December 12, the wound was again examined and found to be granulating nicely, with no evidence of further necrosis. There is at this time, six weeks after injury, firm union, and fair motion in ankle joint, which, under the circumstances is very gratifying.

### Conclusions.

#### I. As to fractures of the femoral neck.

1. Any injury about the hip, however slight the cause, in a person past 45, should receive the most careful attention.
2. Impacted fractures do not present marked symptoms, and are therefore more apt to be unrecognized.
3. It is never safe to give a positive opinion in these cases without anesthetizing patient or making an X-ray examination. The latter, however, is not often convenient, while the former is always available.
4. It is not necessary to differentiate between intra- and extra-capsular fractures, as the treatment in both cases is identical.
5. The simple Buck's extension apparatus with patient on a firm mattress and iron bed (weight varying to suit the case) gives as good results as can be obtained.

## II. As to fractures of the femoral shaft.

1. It is a wise plan here also to use anesthesia in making the reduction, as it is painless to the patient and absolutely satisfactory to the surgeon.

2. I wish to call special attention to the use of the combined extension and plaster apparatus, especially in double fracture, where the difficulty of securing permanent apposition and absolute rest is so great. This combination I have never seen suggested by any other person:

## III. As to compound fractures.

1. Success or failure in these cases depends almost entirely upon the first dressing, hence the absolute necessity of rigid antiseptic measures.

2. If we are not able to sterilize the wound otherwise, it is far better to cut down on the fracture, irrigate and treat it as an open wound, than to take any risk of infection.

**Finally.**

There are no classes of injury where surgery is brought so much into disrepute and where surgeons suffer more criticism and malpractice suits than in fractures. Consequently, with the combined experience of our predecessors and contemporaries to warn and guide us, it behooves us to use every means at our command to make accurate diagnoses and accomplish successful results. The X-ray is a wonderful and useful adjunct in all fractures and should be used when available, wherever the least doubt of the diagnosis exists. The motto of old Davy Crockett, "Be sure you are right, then go ahead," finds here a most fitting application.

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APOMORPHIN IN DELIRIUM TREMENS.—R. F. Lewis (*N. Y. Medical Journal*, January 27, 1900) used apomorphin to evacuate the stomach of a patient who had been on a protracted and violent spree. He was surprised to note that the intense excitement, the asthmatic difficult respiration, and all the other symptoms of alcoholic delirium, soon subsided, and the patient was easily controlled.



## SMALLPOX.\*

BY F. S. RAYMOND, M.D.

MEMPHIS, TENN.

County Physician to Shelby County; Physician to the City Hospital.

Smallpox is one of the oldest diseases of which we have any history. As to the exact date of its first appearance there is no definite knowledge, but we have no doubt of its existence five hundred years before the Christian era. Smallpox is no respecter of persons. Crowned heads have fallen victims to its ravages; among them may be mentioned Henry, Duke of Gloucester, Mary, Princess of Orange and mother of William III, Mary, Queen of England and wife of William III, Joseph, Emperor of Germany, Peter II, Emperor of Russia, Henry, Prince of Prussia, and others. Macaulay, an English historian, refers to the disease as "the most terrible of all the ministers of death." Prior to the introduction of inoculation of cowpox by Jenner in 1796, smallpox was indeed a dreadful disease. In England nine per cent. of all deaths was due to it. During the sixteenth century in Mexico three million five hundred thousand people died of smallpox. About this time whole tribes of North American Indians were exterminated by it. The annual mortality in England is said to have been three thousand to each million inhabitants. In France thirty thousand died of it each year, and in Russia two million died in one year. From 1788 to 1799, inclusive, one-tenth of the entire death rate of Berlin was caused by smallpox.

Now when we compare the foregoing statements with the smallpox as it has appeared in nearly every State in the Union, Mexico and Canada, in 1899, we do not so much wonder that there exists a difference of opinion as to whether the smallpox of this year is really variola vera. It is to this feature of the subject that I shall more especially ask your indulgence.

From an experience of five years of almost constant handling of the disease, and from all the facts I have been able to collate, I am very much of the opinion that Dr. Happel's "Pseudo Smallpox

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\* This paper is a reply to one on "Pseudo Smallpox in Gibson County," read by Dr. Happel at the Tri-State Medical Association in November.

in Gibson County," and other similar instances of a rather new and mysterious disease occurring usually among the negroes and spreading from town to hamlet, from hamlet to farm, and from one farm to another, were variola vera, though of a mild form.

In the public health reports published by the United States Marine-Hospital Service for last year, I find that the disease has appeared in thirty-one States in this country, and in various places in Mexico and Canada; and in almost, if not in every, instance the disease prevailed throughout in the mildest form ever known by those who had to do with it. Indeed, so generally was this the case, that not only in Tennessee, but in many other places, has difference of opinion among medical men connected with boards of health caused great delay in inaugurating measures to stamp out the disease; and great expense has been incurred as the result of refusals of boards of health, or others in charge of the situations, to believe there was danger, or to accept the diagnosis of smallpox. Two instances of this nature may here be mentioned:

Smallpox appeared at Danville, Pittsylvania county, Va., on May 31, 1899, but was not recognized as variola at all on account of its very mild form, and the secretary of the State board of health was ordered there, but failed to convince the local authorities that the disease was smallpox, and a surgeon of the Marine Service was sent there before the diagnosis was made, when it was then positively declared to be smallpox.

Dr. C. P. Wertenbaker, passed assistant surgeon of the Marine-Hospital Service, reported smallpox in Warwick county, Va., in April, 1899, but the local board of health positively refused to take any steps toward getting rid of it or restricting its spread. The Governor of Virginia requested the secretary of the State board of health to meet Dr. Wertenbaker there, and after all other means devised by them had failed, the former told the local boards, municipal and medical, that if they did not get to work isolating and vaccinating, the county, including Newport News, would be declared infected and quarantined. Then, and not till then, was anything done, and not until after eight hundred and ninety-one cases of smallpox had developed.

While West Tennessee is not the only place where there exists a difference of opinion in the minds of those connected with departments of public health, yet to those of us in this section, and espe-

cially in Shelby county and the city of Memphis, the question is of the very greatest importance, inasmuch as these places are now being made the dumping ground for smallpox and all classes of paupers from neighboring States. Notwithstanding my appeal to the Government for the protection guaranteed us by the international quarantine law of 1893, the boards of health of Tennessee, State, county and city, are now confronted with a grave condition, and we cannot afford to temporize and quibble among ourselves as to whether some mysterious though mild disease is really smallpox, but let us make our investigations a mutual hunt for the truth rather than a controversy about nonessential points, simply because some one of us has found a disease very like smallpox, but does not come up to the standard as laid down by the older writers.

Since March, 1895, we have had in Shelby county and the city of Memphis, approximately, twelve hundred cases, treated at our emergency hospital or pesthouse. During 1895 and 1896 the disease prevailed in a very severe form, giving a death rate of nearly thirty per cent. Last year the percentage of deaths was a little more than one per cent.

I have seen the disease in all its forms, from the mildest to the hemorrhagic—*purpura variolosis* and *variola hemorrhagica pustulosa*—and my experience last year convinces me beyond a doubt that the disease described by Dr. Happel is exactly what we have lately had in Shelby county. We have today, and had during the whole of last year, with the exception of two or three weeks, in our pesthouse, numbers of cases so mild that no one not familiar with the disease would for a moment regard them with any apprehension. Yet in the same ward with, and perhaps in the next bed to, those very mild cases, we have had confluent cases, and not in a single instance has one of the milder cases contracted the severer form while constantly exposed for three weeks. Furthermore, not in a single instance has one of the mild cases returned with a second attack in any form in the last five years. During the past year not but one out of each forty cases treated by us was confluent; yet I know absolutely that the one confluent case got his infection from the same source as the thirty-nine mild ones, and vice versa. So one must conclude that the extremely mild cases are *variola vera*, or that the confluent ones are not, which, to say the least, is absurd.

To my mind the mistake that has been made, not only in Ten-

nessee, but in various places, is that those not familiar with smallpox are looking for a much more formidable disease than need be to constitute smallpox. The distinct chill and great backache and headache preceding the severe cases are absent in the mild ones, or so nearly so as to pass unnoticed by the patient. Last year many of our patients were not aware that they were sick until arrested on the streets or at their homes. Our few confluent cases were members of the same families of those attacked with the mild form.

A common mistake, I think, is to expect secondary fever in every case. Secondary fever being essentially septic, caused by pustulation, it stands to reason that, if there is little or no pustulation, there can be but little or no fever secondarily.

From personal experience I am free to say that it is not so difficult to make a diagnosis of the disease as is the common belief. But a correct diagnosis cannot be made unless one sees and studies the disease in different stages, and not certainly by expecting to find all the symptoms, in very many cases, as are laid down in the books. I have seen good doctors treat smallpox right into the pustular stage without suspecting it to be such. To my mind such a mistake is inexcusable. No physician who *thinks* ought to fail to recognize it on the second or third day of eruption.

In making a diagnosis by elimination, I would say the diseases most likely to bewilder the doctor and to be mistaken for smallpox are measles and varicella—measles on the first day of eruption, and chickenpox at almost any stage of the eruption. However, not to mention the difference in the stages of incubation and invasion of the two diseases, if we will but remember that the temperature in measles always rises upon the appearance of the eruption, and that the opposite is true of smallpox, we will not err. Again, the eruption is macular in measles and papular in variola; the eruption is *on* the skin in measles and *in* the skin in variola, which can be determined by the fingers. The eruption in chickenpox is vesicular almost from the beginning; in smallpox it is never vesicular before the third day. However, the most distinctive difference in the eruption of the two diseases, and one which we may safely rely on, is that in chickenpox the vesicles appear in successive crops; that is to say, if we observe a fresh vesicle today, tomorrow it will be bursted and dried, and within an inch of it we will find that another has just appeared. This never occurs in smallpox in any

form, mild or otherwise. The papules, vesicles and pustules appear and mature in almost the same length of time.

The papular form of secondary syphilis might puzzle a physician not accustomed to smallpox, but if the history of the case is looked into, it is scarcely possible to make a mistake.

In any given case of suspicious eruption, especially in the negro race—and I say especially in this race because no eruptive disease is as easily diagnosed in the black man as in the white—one of the first steps to be taken in an investigation should be to examine the arms of the suspect for vaccination marks, and if a tolerably recent and well-defined cicatrix is found, we may almost positively exclude smallpox. But we of course know that vaccination, though perfectly done with positive effect, does not always prevent smallpox; neither does one attack of the disease absolutely prevent another. Jenner himself relates the fact that Louis XV died of a second attack of the disease; and in the smallpox hospital at Boston in 1885 a patient had the disease three times in eight months. But these are the exceptions, and not the rule, by any means.

Since reaching the subject of vaccination abruptly, although I had intended noticing it under a special head, I may as well now as later on declare that in my humble judgment the discovery of the prevention of smallpox by vaccination is the most brilliant achievement ever attained by anyone in the science and practice of medicine, before or since. And I believe thorough vaccination, repeated every five to fifteen years, will prevent smallpox just as often as having the disease once will prevent a second attack. In my experience I have never seen a case of smallpox in any person who had been successfully vaccinated in ten years.

Of the six hundred cases at the hospital last year, ninety-five per cent. were colored, and of these eighty-five per cent. were males. Not more than five per cent. of the whole were children, for the reason that in Memphis all children must be vaccinated before they are admitted into school. The white people are much more commonly vaccinated than the negroes, and the city board of health find it much easier to vaccinate the colored women than the men. Hence the ratio.

Dr. Cyrus Edson, chief inspector of contagious diseases of New York City, in his report of 1890, said: "The first question asked by our inspectors of one sick with a suspicious case is, 'When were

you successfully vaccinated?' If the answer is in five or six years, the disease is not believed to be smallpox." He says further: "During nine years of service in the health department of New York, I have never seen a case of smallpox in a person who had been successfully vaccinated within five years, and never saw but one inspector contract the disease, and he was the only inspector who disbelieved in vaccination and refused to be vaccinated."

Of course the value of vaccination is accepted by almost the entire world of medicine and by everybody else who does not spell constitution with a K. I will report a case or two illustrative of the protection by vaccination.

In the outbreak of 1895 one of our inspectors found a colored man with a confluent case at the beginning of the pustular stage in one room, and in an adjoining room was a woman with a similar case. In the same bed with the man was his wife and an infant four days old. I visited the place, and found that the woman had been successfully vaccinated on both arms a few years previous. The whole lot were sent to the pesthouse, and the man and the woman from the adjoining room died; the infant contracted the disease and died, but the mother remained a month at the hospital without contracting the disease, and is still living.

About the same time a negro child, four years old, was found with confluent smallpox in a cabin with two older children and the father and mother. The parents had been vaccinated thirty years before, and both had at the time the mildest varioloid. The older children had been vaccinated two years previous, and they slept in the same bed with the younger one. The parents and child with the disease were sent to the pesthouse, and the parents recovered, but the child died. The other children were left in the house and slept in the same bed, but neither of them ever developed a symptom of the disease.

I could mention many similar cases if space permitted.

An early positive diagnosis should be made of all suspicious eruptive diseases occurring, especially among the unclean, unvaccinated negro population. If there is no one conveniently near by who is competent, get an expert and take no chances. Under such circumstances I would urge local boards of health everywhere to isolate, disinfect and vaccinate as the only hope to escape stampedes, the closing of public schools, stagnation of business, and the

expenditure of large sums of money. We had better make a hundred mistakes than one blunder. Besides, the day has come and gone when it is considered, either by the profession or the laity, discreditable to err on the side of safety. The medical profession generally should stand by boards of health everywhere in taking precautions against this disease, instead of, as is sometimes done, criticising them. I am not, and have never been, in favor of the idea of the least suppression of facts from the newspapers and the public, for fear of hurting commercial interests. Whenever such a course is pursued, and the fact leaks out, as it usually does, that health authorities are suppressing facts about any contagious disease in any place, there is always more or less of a stampede, and more damage is done to commerce than the publication of early facts would have caused.

As to the treatment of variola, very little need be said. My experience convinces me that the disease runs a definite course always. The mild form needs no medical treatment at all, and the severer forms are influenced but little by treatment. The patients should be kept in well-ventilated and clean wards. I believe the old idea of keeping patients hot is erroneous, as our best results have been with people treated in tents. I have never seen any plan of treatment prevent pitting, and have seen cases seemingly similar in age, color and severity of symptoms treated by exactly the same plan with very different results. In our hospital I usually give a purgative or laxative to begin with, and if the temperature is high I control it with cold sponging or a few small doses of phenacetin; nourish with milk and broths, and cold water is usually freely given. Diarrhea, which occurs in many cases, is treated with some mild remedy, such as paregoric. Secondary fever is treated as any septic condition should be.

In conclusion. I know of no disease to which the old adage "an ounce of prevention is worth more than a pound of cure" is so applicable as smallpox. And as a representative of the public health in West Tennessee, I beg of every member of the profession to help adopt this maxim.



Illustrating Dr. Buford's paper on Elephantiasis of Scrotum.





Illustrating Dr. Buford's paper on Elephantiasis of Scrotum.

## ELEPHANTIASIS OF SCROTUM.

BY G. G. BUFORD, M.D.

MEMPHIS.

The accompanying pictures are photos taken of a laborer who presented himself to the U. S. Examining Surgeon's Board for examination, alleging disease of the scrotum. His penis measured 10 x 12½ inches and scrotum 10 x 13 inches. He gives a history of cystitis following exposure. There were present cicatrices over the perineum, scrotum and pubes. Urine was passing involuntarily from a fistulous opening in the upper anterior part of scrotum.

Elephantiasis is the result of irritation, the legitimate sequence of which is hypernutrition. Wyeth gives the history of several cases. The condition is rare in this climate, though common in tropical countries. Ablation is the only cure. Surgical interference was tendered in this case, but respectfully declined.

Masonic Temple.

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## IMPORTANCE OF EARLY DIAGNOSIS OF ADENOID VEGETATIONS.\*

BY M. A. GOLDSTEIN, M.D.

ST. LOUIS, MO.

Professor of Otology and Laryngology, Beaumont Hospital Medical College, St. Louis.

Adenoid vegetations, hypertrophy of the pharyngeal or Luschka's tonsil, and enlarged third tonsil, are all equivalent terms indicating hyperplasia of the glandular structure in the vault of the pharynx. The importance of the early recognition of the pathological condition designated by these terms is a vital question in the etiology of diseases of the ear.

About 1860 Czermak, Turck, Lowenburg and Voltolini reported cases in which this tissue overgrowth had been observed. The real significance of this pathological condition and its numerous dire sequelæ, however, were first prominently brought to the attention of the profession by Meyer, of Copenhagen. In 1870 Meyer pub-

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\* By special arrangement this article will appear simultaneously in THE LANCET and THE STYLUS.

lished his classical treatise on Adenoid Vegetations in the *British Medico-Chirurgical Transactions*, and presented his researches to the profession in England.

Several years elapsed, however, before the great value of Meyer's careful research received the endorsement which it so richly merited. As the value of these observations became more generally known, a new era in the history of otology was developed. If it were only the recognition of a new pathology of the pharynx which the classical treatise of this eminent Northern observer brought to light, the diagnosis and treatment of this hypertrophied tissue would simply have been classed with the many other progressive factors in surgical science. In the light of modern pathology, however, we recognize in the discovery of adenoid vegetations and the proper methods advocated for their removal, perhaps as great a factor in this special field of medicine as the introduction of laparotomy in surgery.

When we consider that recent statistics indicate that from 50 to 75 per cent. of all cases of deafness are either complicated with or originally caused by this hyperplasia of the tissue in the vault of the pharynx, we no longer question the harmful influence which this hypertrophied tonsil tissue exerts upon the organ of hearing. In an examination of the inmates of an institution for the deaf and dumb, Wroblewski found hypertrophy of the pharyngeal tonsil in 92 out of 160 cases (57.5 per cent.); Lemcke found adenoids present in 58 per cent. of the deaf mutes whom he examined; Peissonn, 50 per cent. in 100 patients examined in a Parisian asylum; Frankenberg, in an examination of 158 inmates of the Prague Deaf and Dumb Asylum, found hypertrophy of this glandular tissue in 94 (59 per cent.) On the other hand, of many patients not deaf mutes who are suffering from various diseases of the ear, Halbeis found 53 per cent. with marked hypertrophy of this tissue, and Meyer 75.8 per cent. Another picture to illustrate the evil influences of adenoid tissue on the ear is indicated in a report by Arslau, of Padua. In the *Journal of Laryngology* he reports an examination of 4080 patients suffering from diseases of the throat, nose and ear, in 426 of whom adenoids were found (10.4 per cent.); of this number 251, or 59 per cent., were the victims of some form of ear disease.

In the light of these investigations it is well to occasionally sound a note of warning for an early recognition of these obstruc

tions in the vault of the pharynx, and to urge a careful examination of all patients in whom these conditions may be suspected. The diagnosis of this condition presents but few difficulties. Simply an understanding of the results of nasal obstruction, together with acuteness in observation of the facial expression and an appreciation of the value of general diagnosis, are necessary to definitely establish the presence of adenoid growths. Normally the lymphoid tissue in the vault of the pharynx is incorporated in the mucous membrane, and scarcely elevated above its surface. It is this lymphatic tissue of the pharyngeal tonsil which is involved in the hyperplasia and hypertrophy, which so readily fills the naso-pharyngeal cavity.

The most susceptible period for the development of adenoids is the period of adolescence, the ages between five and sixteen, when the lymphatic cavities of the system are most pronounced and when similar influences extend to the lymphoid tissues of the pharynx. These young patients present the following clinical picture: The first thing that impresses the medical observer is a peculiar anxious expression about the face of the patient, a pinched, drawn-up nose, mouth constantly open and lips parted, eyes abnormally dilated; the entire facial expression usually appearing as one of stupidity and dullness. The breathing is labored, frequently accompanied by a rattling caused by accumulations of mucus in the naso-pharyngeal area.

These are the landmarks accompanying adenoid growths due to the mechanical obstruction of the naso-pharynx and the efforts made by the patient to breathe physiologically through the nose. The complexion is sallow, and a general lacking of tone and nourishment of the system is apparent. The little sufferers sleep restlessly, usually with the mouth wide open and snoring lustily. Here also a normal function of the body is disturbed. The air we breathe should be inspired through the nose, where it is properly moistened, warmed and filtered before reaching the lower respiratory tract. Where hypertrophied adenoid tissue obstructs nasal respiration, the air is inhaled through the mouth, reaching the lungs unpurified, unmoistened and in an unfavorable temperature. These unfavorable conditions are responsible for the stunted growth and impaired physical development of this class of cases.

A feature of prime importance, however, and perhaps the most

serious sequel in the consideration of this subject, is the obstruction in the naso-pharynx in its relation to the organ of hearing. As the hypertrophied adenoid tissue in the pharyngeal vault and wall progresses it soon encroaches on the lateral walls, where the pharyngeal orifices of the Eustachian tubes are found. It requires but little of this soft, lymphoid tissue to completely conceal the orifices of the Eustachian tubes and thus deprive the middle ear cavity of its natural ventilation and source of air supply.

As a natural consequence of the depletion of air from the tympanic cavity, the drum membrane collapses, the functioning of the entire conducting apparatus of the ear is seriously impaired, and deafness is the result. If the adenoid tissue responsible for this obstruction and functional derangement is neglected for a number of years the evil influences brought to bear on the ear become permanent, and marked deafness results. This has oftentimes been proven by radical operative procedures for the removal of adenoid vegetations in adults suffering from deafness. While in some instances these operations are attended with some diminishing of the deafness, yet, in the bulk of cases thus operated upon, the relief has come too late.

It is imperative, therefore, to institute measures for the eradication of this adenoid overgrowth at the earliest possible opportunity. To confirm the diagnosis as presented by the appearance of the patient, there are two methods at our disposal: 1, the inspection by reflected light of the naso-pharynx; and 2, digital examination. Examination with the post-nasal mirror is often unsatisfactory in young patients, where fretfulness and restlessness prevent a careful inspection, and where the introduction of tongue depressor and mirror easily cause gagging. Physicians should urge the parents of all children to an early training in this direction. When the family doctor presents himself before the little patient, spoon or tongue depressor in hand, he should not meet with the usual vociferous resistance so universally accorded him. A child should be taught to open its mouth wide to permit an easy inspection of the fauces, tonsils and adjacent structures which are so frequently involved in the throat complications of exanthemata and other diseases of childhood, presenting lesions or infection of this area.

By far the most satisfactory verification of the presence of adenoid growths is the digital examination of the naso-pharyngeal

space. Briefly, this is accomplished in the following manner: a short section of rubber tubing, a heavy nipple finger cot with the closed end cut off, or a metal finger guard should be slipped well over the index finger of the operator's right hand to protect it from the teeth of the patient during the examination. As an additional safeguard, the mouth should be kept well open by some form of mouth gag, and the patient firmly fixed and held by an assistant.

A simple procedure to check the struggles of the patient is to wrap a sheet about the body, thus pinning the arms to the sides; the legs should be fixed by the legs and knees of the assistant, who sits in a low chair with the patient on his lap; the head must be steadied in an erect position. The operator now passes the finger, previously well cleaned, quickly to the back of the pharynx with the palmar side of the hand uppermost. The finger then glides upward back of the soft palate, following the line of the posterior wall of the pharynx to the vault until the outlines of the naso-pharynx can be explored. The finger then makes an excursion laterally right and left, sweeping over the entire surface of the pharyngeal wall and vault, and if hypertrophied adenoid tissue is present this is encountered and presents to the touch a peculiar soft, yielding and irregular mass, which has been frequently described as the "sensation of touching a mass of earth worms." This overgrowth of adenoid tissue may also be compared to a mass of soft, cauliflower-like granulation tissue.

There is but one successful method advocated for the treatment of this condition, and that is its surgical extirpation, and the sooner the physician advises this procedure the greater will be the service rendered the patient. It is not the province of this paper to consider the technique of the removal of adenoid growth, but simply to impress the physician with the importance of this pathologic lesion in the naso-pharynx and the grave complications which may involve the organ of hearing and the general health of the patient if a prompt removal and active arrest of this hypertrophied lymphoid growth is not carried out. By overlooking this naso-pharyngeal obstruction in the early stages of its development, we are jeopardizing the hearing, health and happiness of our young charges, and this plea is offered in their interest.

## REPORT OF A CASE OF PSEUDO CYESIS.

BY ALFRED MOORE, M.D.

MEMPHIS.

Young girls who have a good reason to fear pregnancy, and married women who ardently desire to be pregnant, are apt to imagine themselves *enciente* when they are not. These women will sometimes present all of the subjective and some of the objective symptoms of pregnancy that will not only deceive themselves, but will sometimes mislead the physician also, if he does not make a careful examination.

Hirst mentions a case that was sent to the Philadelphia Hospital to be delivered, the physician who sent her there having made the diagnosis of pregnancy at term. She was examined carefully at the hospital and the abdominal distention was found to be due entirely to tympanites, due to partial obstruction of the sigmoid flexure, which was involved in adhesions of the uterine appendages caused by a peritonitis nine months previous.

The following case occurred in a young girl, who I might properly describe as hysterical and weak-minded:

At the time I first saw her she was suffering with a pelvic peritonitis and gave a history of absence of menstruation following intercourse, nausea, vomiting, enlargement of breast and abdomen. She firmly believed that she was pregnant, and on inspection, the breast and abdomen certainly looked like she was pregnant. I was unable to hear fetal heart or make a digital examination on account of the pain and tenderness present.

The family were very anxious for a positive diagnosis, but I had to admit that I was unable to make a positive diagnosis of pregnancy and that they would have to wait. In ten days the temperature which she was having subsided and I attempted to make an examination with the patient on the table. She believed that she was about five months pregnant but had not felt quickening. The hymen was ruptured and the vagina inflamed. There was still too much inflammation to make the bimanual examination, and I told the family that they would have to wait several weeks longer, as I was unable to say positively whether she was pregnant or not. At the end of three weeks I examined her again and found temperature normal, pulse normal, nauseated, could not wear corset or skirts around waist, breasts continued to attract attention. She felt no movements but firmly believed that she was pregnant. The abdomen was swollen and tympanitic. I could not hear heart sounds nor could I feel womb or fetus by external examination. By conversing with her about different things foreign to her case, I was enabled to make a digital examination and the cervix and womb were found to be small and about the normal size. The tubes and ovaries were tender on pressure.

It was hard to convince her that she was not pregnant, but as soon as I succeeded in convincing her of the fact that she was not, her periods returned almost immediately. Since, she has had one or two cramping spells with nausea, but her periods have returned twice and she does not now believe that she is pregnant. I have not had an opportunity to make a digital examination lately, but learned from the family that her periods have returned regularly since this was reported.

Weir Mitchell has noticed that the symptoms and signs of pregnancy rapidly disappear in these cases when the woman is once fully convinced of the fact that she is not pregnant.

The writer was once invited by two internes to witness a labor. The woman was about 35 years of age and looked to be pregnant. She had then been in labor for a considerable time and no progress made. About this time one of the professors came along and examined the woman and found that she was not pregnant, and that her condition was due to tympanites and fat.

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## CORRESPONDENCE.

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ATLANTA, GA., January 25, 1900.

*Editor Memphis Lancet:*

DEAR DOCTOR—I have just read Dr. Ellett's article in the *Memphis LANCET* on the prevalence of certain eye, ear, nose and throat diseases among the negroes. I enjoyed reading the article, and in the main my experience agrees with his. There are two points, however, where we differ.

First, in regard to the occurrence of squint in the negro. There is hardly a year which passes when I do not operate on from three to four cases of squint in the negro, and that too in the full African type. Internal strabismus is the most frequent type, yet I have also operated on the external forms. I consider squint among the negroes as by no means infrequent. I can scarcely see how there can be such a difference in the experience of various Southern oculists, and Dr. Ellett's statement was indeed a surprise to me.

Second, in regard to adenoids in the negro. I have operated on seven cases of adenoids in negro children during the last three months at my clinic at the Atlanta College of Physicians and Sur-



geons. Nor has this been an unusual experience. The adenoid tissue removed from these cases was as large as is usually found in any other class of patients. The fact is, I have come to look for adenoids in the negro as often as in the white. It may be that climate and altitude have something to do with this, and yet it is hard to see why my experience does not agree with that of other Southern laryngologists.

Another fallacy quoted in the various textbooks on the eye was promulgated by Dr. Burnett, of Washington, and that is in regard to the non-occurrence of trachoma among the Southern negroes. My experience shows that true trachoma is exceedingly rare among all classes in the South, but that it occurs just as frequently among the negroes as among the whites. I mean that I have seen true cicatricial tissue in the lids as the result of this disease, although I have never seen it produce entropion of the lid.

Remember, I am not criticising the results of Dr. Ellett's observations, but am simply giving you my experience here in Atlanta.

Very truly yours,

DUNBAR ROY, M.D.

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CONCERNING CONVERGENT STRABISMUS.—Roosa (*Post-Graduate*, Dec., 1899) says that we have finally learned that strabismus is an affection that, in order to cure, is to be taken seriously. It should be treated as soon as it is recognized, if possible, even if it be at the early age of 2 or 3 years. An operation is the last resort when we find that exercise, with occlusion of the fellow eye and correction of the refraction will not remove the deformity. When the operation has been performed, the patient should always be kept in the hospital or in-doors for at least twenty-four hours after the operation. Finally, the patient should not be lost sight of, until it is certain that all that is possible has been done not only to restore the normal action of the muscles, but also binocular single vision. That the latter is not more frequently accomplished is because the subjects are not seen early enough, and not treated thoroughly to the end.

# THE MEMPHIS LANCET.

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## EDITORIALS.

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### WHAT MAN AND THE LOWER ANIMALS OWE TO VIVISECTION.

A bill prohibiting vivisection in the District of Columbia has been introduced before Congress by Senator Gallinger, which, should it pass, will establish a precedent for similar action in all the State Legislatures of the Union; bring the good work done by the Bureau of Animal Industry and Marine Hospital Service to a standstill, as well as embarrass and severely cripple medical research, thought and opinion in the United States. The emotional element in man is strong, and fearing that this element will be directly appealed to by the eloquent Senator, who is a homeopathic physician, a fact which will give his utterances on the subject the stamp of authority, and fearing also that such an appeal from such a source might be made to overshadow the question of the utility of vivisection, we have gone to the trouble to demonstrate, by compiling a few facts, what man and animals owe to this practice.

Evolution is a slow and insidious process, and medicine had been no exception to the general law until 1857, when Pasteur demonstrated the development and germination of organized elements as the real cause of all fermentation. A new world was then opened to science, and Lister immortalized himself and Pas-

teur's discovery by giving to the world that blessing of blessings—antiseptis. Prior to this time the theory of spontaneous generation was the accepted one.

“By this sure experiment we know  
That living creatures from corruption grow.”

Although in 1668 Francesco Redi cast serious doubt upon this speculation, it remained for Pasteur to upset it completely by a series of most beautiful and decisive experiments by which he demonstrated beyond cavil that sterile liquids remained sterile indefinitely so long as no germs were introduced into them, and that *living germs* existed everywhere. This was the true birth of the microbic or parasitic theory of disease, and Listerism or antiseptis was the natural outcome of it.

In 1863 Davaine, stimulated by Pasteur's researches, after numerous inoculation experiments, demonstrated that the bacillus anthracis was the causal factor of anthrax. In 1873 Obermier demonstrated the contagium of relapsing fever. In 1877 Weigert introduced staining of the then known bacteria, but in spite of this the profession were slow to accept the microbic theory of disease until 1875, when Lister demonstrated to the world the relationship existing between micro-organisms and inflammation and suppuration. In 1878 Koch published his “Infectious Diseases of Wounds.” In 1879 Hausen found the bacillus of leprosy and Neisser found the gonococcus.

In 1880 Eberth observed the typhoid bacillus; Pasteur published his work on Chicken Cholera, and Sternberg described the micrococcus Pasteuri (pneumococcus of Fränkel). In 1882 Koch demonstrated the tubercle bacillus; Pasteur published a work upon Rouget du Porc, and Löffler reported the discovery of the bacillus of glanders. In 1884 Koch discovered the comma bacillus—the cause of cholera; Löffler the diphtheria bacillus, and Nicolaer the tetanus bacillus—the cause of lockjaw.

In 1892 Pfeiffer discovered the bacillus of influenza (la grippe), and in 1894 Yersin and Kitasato independently isolated the bacillus causing the bubonic plague. This practically demonstrates the history of modern medical advancement. The question now naturally suggests itself: what has all this to do with vivisection? The answer is plain. Bacteriology is the *science* whose principal objects are to discover the cause, prevent dissemination, and prepare the

way, for the cure of diseases. Koch's law, which briefly demands that a specific microbe be always associated with a specific disease; that this specific microbe must be demonstrated and capable of reproducing the disease in another animal through inoculation, makes vivisection absolutely essential to further progress, and we contend that further progress is necessary for the benefit of man as well as animals. Our task then is to prove our contentions to be correct. We will therefore state "our case" first, then consider the main arguments brought forth by our opponents, and lastly disprove these arguments.

Since the fourteenth century about 25,000,000 lives have been lost by the bubonic plague. Two years ago Prof. Haffkine utilized twenty rats, the disseminators of the infection, in the hope of demonstrating the virtues of a protective serum which he had formulated. Ten of these rats were inoculated with the serum and ten were not; of the uninoculated nine died with the disease, of the ten rendered artificially immune only one contracted the disease. In lower Daumann 2197 persons were inoculated with Haffkine's protective serum, 6033 remaining unprotected; of the latter 1482 died, of the former only 36 died.

The only parallel to this is the treatment of diphtheria with antitoxin, whereby 50,000 (a safe estimate) lives are saved annually the world over. In the days of the Empress Catherine of Russia 2,000,000 people died of smallpox in a single year in the Russian Empire. In 1707, in Iceland, out of a population of 50,000, 1800 died. In Mexico, in the sixteenth century, 3,500,000 died of the disease.

In Sweden, before vaccination, the deaths per 1,000,000 population were 2045; since compulsory vaccination was introduced the rate has fallen to 155. In England, during the eighteenth century, the average deaths per 1,000,000 were about 2000; since the enforcement of vaccination it has fallen to 53 per 1,000,000. The modification of this law, however, has so much increased the number of cases of smallpox that the people are now again clamoring for free district vaccination. From personal experience we can speak of the great value of vaccination from the lessons learned in the greatest of all modern epidemics—the epidemic in Montreal, Canada, in 1885. The greatest lesson taught, however, is the one of the Franco-German war. The latter were protected by vaccination and

re-vaccination, and had but 261 cases; the former were not so protected, and had 23,469 cases. Yet even today, and in the city of Memphis, we find men of intellect, rabbis and scholars, still clinging to the dread of dangers that have long since passed—to the ancient prejudices that should have ceased when arm-to-arm vaccination ceased. The preparation of vaccine virus, diphtheria antitoxin and Haffkine's protective serum against bubonic plague, all require vivisection. Is it right to deny mankind these benefits?

In 1882 Koch discovered the tubercle bacillus, and in 1888 tuberculin was given to the world. While this has not met the expectations of the world as a curative measure, it nevertheless remains the only means of diagnosing "consumption" in its earliest stage in man and animals, a fact of the utmost value from the hygiene standpoint. The value of this knowledge to stock raisers is immeasurable, to say nothing of the satisfaction it may afford a few anti-vivisectionists and ourselves to know that the danger of ingesting tuberculous meat and giving their little ones and our little ones tuberculous milk is reduced to the minimum.

A few figures as to diphtheria may also be of interest. Welch investigated 7166 cases from 80 different sources, showing a mortality of only 17.3 per cent. after antitoxin treatment, or a diminution in mortality of 55 per cent. This mortality has since been greatly reduced. The different mortality rates according to the date of commencing treatment is almost startling. We give the exact figures from *Johns Hopkins Bulletin*, 1895:

Day.	Mortality.	Day.	Mortality.
First.....	18.3	Fifth.....	67.0
Second.....	22.7	Sixth.....	67.4
Third.....	38.1	Seventh.....	72.5
Fourth.....	53.6	Eighth.....	81.6

Could figures be more eloquent in their appeal for the earliest possible use of a remedy? In the first investigation of the American Pediatric Society there were nearly 6000 cases investigated in the practice of 615 physicians in Canada and the United States. The mortality was 12.3 per cent; 218 of these cases were moribund when injected, but are included in the mortality report. In over 4000 cases, in which the treatment was begun during the first three days, the mortality was only 4.8 per cent.

In the report of 1897 it is stated that "before the introduction of the serum treatment, 90 per cent. of the cases of laryngeal diphtheria required operation; after its introduction, only 39.2 per cent. Before the serum treatment was introduced recovery took place in 27 per cent. and death in 73 per cent.; after the serum treatment was introduced the figures were precisely reversed; recovery took place in 73 per cent. and death in 23 per cent. Well may Prof. Jacobi say that diphtheria treated with antitoxin within twenty-four hours should have no death rate.

Prior to the use of Pasteur's antirabic serum no authentic case of cure from hydrophobia had been reported. The mortality was 100 per cent.; today it is less than 1 per cent. Vivisection is necessary for the production of the immunizing agent. Mention might also be made of trichinosis, of cholera, of typhus and typhoid fevers; of yellow fever, and a host of other diseases, as showing the utility of vivisection.

And as marking our acknowledgment of the debt we owe to the lower animals for the service they are to us, we need only mention the studies that have been undertaken in their behalf by the U. S. Bureau of Animal Industry as to anthrax, hog cholera, swine plague, Texas fever, actinomycosis, tuberculosis, glanders, etc., etc. \$25,000,000 was the estimated saving to stock breeders in 1897 in the United States by these investigations, which naturally implies that a vast number of animals were saved from suffering and from death. Do the anti-vivisectionists object to the saving of this vast amount of suffering and death?

"The Case Against Vivisection," by Mark Thornhill, Esq., London, 1899, is as strong an argument as we have seen put forth, but like all their other arguments it is a well-planned effort to belittle the past and present efforts of doctors, sanitarians and veterinarians. We have read this book of 145 pages together with other literature bearing upon this phase of the subject, and for argument's sake we grant everything that they say, although it is only just to state that a compilation of greater misstatements we have never seen. The operation of tracheotomy is referred to as "slitting of the windpipe." The researches of Golz and Ferrier on brain localization are characterized in the harshest language as, "holes bored in the skull, \* \* \* brains pumped out, pulled out with pincers, burned out with corrosive acids and hot wires." They fail to state

that direct irritation of the brain is painless, and even if this were not so, anesthetics were unquestionably employed; for were they not, the voluntary movements would be apt to mask the involuntary movements resulting from the electric stimulative which was always employed first to demonstrate the existence of the center in the animal experimented upon before the center was removed. The researches of Wood on the effects of high temperature (120° to 190°F) on the brain and locally on the nerves are characterized as "dogs burned, baked and flayed alive." They fail to state that these experiments made clear the treatment of heat stroke and sun stroke. On page 40 the author says, referring to positive benefits derived from the practice of vivisection :

"I have been able to find no more than six. These are :

1. The modern treatment of aneurisms.
2. The modern system of securing arteries after amputation.
3. The cure of neuralgia by dividing the nerves of the face.
4. The transfusion of blood.
5. The antiseptic treatment after operations.
6. Nitrate of amyl as a palliative in attacks of angina pectoris."

Surely we cannot be accused of overstating our case when in giving our side of the discussion we completely ignore five of these admitted six benefits and only refer to one—antisepsis—as the blessing of blessings. We will not burden our readers by even attempting any figures to show the good of any of the six benefits admitted by our opponents.

The professional sentimentalists, these self-appointed guardians of the welfare of the lower animals, are false to the trust they seemingly are trying to foster and protect; for had they their wish, the various cattle plagues would carry off their countless thousands and cripple the largest industry of the world, to say nothing of the loss of life entailed by the dissemination of some of these diseases among man.

M. G.

## REPORTS OF SOCIETIES.

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### PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

*Regular Meeting, February 6, 1900.*

The President, Dr. E. C. Ellett, in the Chair.

Present were: Drs. Black, Barton, Reilly, Henning, Buford, Kane, Alfred Moore, W. B. Sanford, W. S. Haynes, Rudisill, Andrews, Haase, Ellett, Heber Jones, Williams, Wolff, Braun, Raymond, Gardner, Rice, Jelks, Crofford, Krauss, Stanley, Goltman, Venn, and Moore Moore.

*Dr. Alfred Moore* read a *Report of a Case of Pseudo Cyesis*. (See page 126.)

*Dr. J. L. Andrews* said that while such cases were not uncommon in literature he had never seen one.

*Dr. Heber Jones* mentioned a case occurring in a very fleshy Jewess at the time of the menopause. A scanty, irregular menstruation occurred during the supposed pregnancy. There was nausea, and the woman said she felt quickening. When labor was due he was called, and informed her of her mistake. The woman has never menstruated again. There was no uterine disease, and the symptoms were due to mental impressions.

*Dr. W. B. Sanford* has seen three cases. Two of the women were averse to becoming pregnant. All the subjective symptoms were present, and one woman thought she was in labor. He would like to know the pathology of these cases. He thinks they are usually due to some uterine lesion, and not to the imagination; but if due to a uterine lesion he does not think menstruation would be reëstablished. He has known of two other cases in women over 40.

*Dr. J. L. Barton* thinks *Dr. Moore's* patient might have been pregnant, and aborted before the final examination was made.

*Dr. Alfred Moore* does not think this could have been the case, though he thought of it, for the woman still thought she was pregnant till he assured her to the contrary, when the symptoms rapidly disappeared. Though there was some pelvic inflammation present, he thought the symptoms in this case were due to the imagination.



*Dr. F. S. Raymond* read a paper on *Smallpox*. (See page 114.)

*Dr. Heber Jones* said that the prevailing disease, though mild, was undoubtedly smallpox. In Louisville last year the death rate was less than 3 per cent. Our observation disproves *Dr. Hap-pel's* statement that vaccination does not protect from the prevailing disease. An instance was mentioned where smallpox appeared in a house in which seven negroes lived, only one of whom had been vaccinated, and he alone escaped the disease. Some of our cases are so mild as not to make the patient sick after the primary fever, and the period of detention in the hospital is shorter than ever before.

*Dr. J. L. Barton* asked if successful vaccination of the parents conveyed any immunity to the children.

*Dr. Marcus Haase* said that as secretary of the board of health he had seen 1084 cases of smallpox, "pseudo smallpox," and "Cuban itch," all of which he thought was true smallpox. Successful vaccination usually immunizes. Personally he has never been successfully vaccinated and has never had smallpox and believes himself to be naturally immune. Second attacks of smallpox rarely occur, but he has seen it once, the two attacks being within nine months. He has seen a woman with smallpox delivered of a dead child bearing the eruption. Another woman contracted it two days after delivery and the child never had it. Several instances were reported where smallpox attacked families, the vaccinated ones escaping. He has seen smallpox and chickenpox occur at the same time, in the same individual, and has seen it follow measles so closely that the eruption of measles had not faded. He does not think vaccination of the parents after the birth of the child protects the child. In January 222 cases were reported to the board of health. In February 12 or 13 cases have been reported. The disease is lessening in frequency.

*Dr. Alfred Moore* asked why our cases are not reported to the Marine Hospital Service.

*Dr. Haase* said they did not have to be, but were, and the last report of that service showed 132 cases up to January 19.

*Dr. B. G. Henning* said he thought vaccination of the mother during pregnancy would protect the child from vaccination and from smallpox, and this would explain natural immunity. He saw a woman who was nursing a smallpox patient give birth to a child

with the eruption in the pustular stage. It is claimed that vaccination done in the papular stage of smallpox will abort the disease, and he thinks he has seen this occur. Stretching the skin does not cause the smallpox eruption to disappear as it does that of measles, etc.

*Dr. T. J. Crofford* asked if it was proper to excuse pregnant women and syphilitics from being vaccinated, and also asked on what do anti-vaccination societies base their opposition.

*Dr. Jos. Venn* asked if we could tell anything about the probability of immunity from the looks of the scar. His idea is that the large scars are due to mixed infection (streptococcus).

*Dr. Henning* said he was successfully vaccinated forty-two years ago and it has never taken on him since, nor has he contracted smallpox.

*Dr. G. G. Buford* agreed with *Dr. Venn* that infection with pus micro-organisms causes the large scars following vaccination. In England a "conscientious objection" will excuse a person from vaccination.

*Dr. Heber Jones* said this was not formerly the case. When a pregnant woman is vaccinated with pure virus there is no danger, but a mixed infection might cause an abortion. He has not seen any bad effect follow vaccination in syphilis. A small pitted scar offers better protection than the big smooth ones. He has a small one from a successful vaccination in infancy and has never had it to take since. He thinks successful vaccination often affords permanent immunity. Negroes will try to wash off the vaccine of the vaccination, and at the board of health they do not dismiss them until the virus is dry. The board vaccinated 23,000 people in 1898 and 26,000 in 1899, about 90 per cent. of them being successful. They make their own virus and have it fresh and strong.

*Dr. Wm. Krauss* said that the young of animals infected with toxins were immune to those toxins only as long as they nursed, and the young of other animals were also immune while nursing an animal who had been inoculated.

*Dr. Haase* does not believe that smallpox can be aborted by vaccination after the eruption appears. He has seen it tried in three cases and the vaccination did not take. Vaccination after exposure will protect from or greatly modify the disease. He has seen smallpox in one man with a good scar thirty-two years old and in another

where the scar was twenty years old. In one case varioloid appeared fourteen days after successful vaccination. He has seen the stage of incubation last fourteen and twenty-one days.

*Dr. Raymond* said that *Dr. Happel's* apparent exceptions to the immunity afforded against "pseudo smallpox" by vaccination were very few and were probably cases of great susceptibility. He has seen the eruption apparently vesicular from the first. He does not see any use in vaccinating after the disease appears. He agrees with *Dr. Jones* about the scars, but does not think that mixed infection vitiates the effect of the vaccination.

A vote of thanks was tendered *Drs. Raymond, Jones and Haase* for their contributions to the meeting.

*Dr. E. D. Mitchell* was elected to membership.

A resolution was passed expressing the sympathy of the society to *Dr. E. P. Sale* at the outcome of a damage suit against him and also the confidence of the society in his professional ability and personal character.

The internes of various hospitals in the city, were, by resolution, granted the privileges of the society.

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## PROGRESS OF MEDICINE.

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**GENERAL PERITONITIS AND ITS TREATMENT.**—The subject of the treatment of general septic peritonitis is always one of interest, although we know that we are almost invariably fighting a losing battle. One of the commonest causes of this as well as other forms of peritonitis is disease of the vermiform appendix, so that we are thus able to speak properly of a form of appendicular inflammation with general peritonitis, characterized by a set of symptoms whose presence almost at once destroys hope in the mind of the surgeon. Cases are reported from time to time, of recoveries from this condition after operation with extensive peritoneal irrigation, usually with surgical salt solution and subsequent free drainage. The method is not entirely satisfactory even when successful, and the results are not always to be accepted without reserve as cured cases of general septic peritonitis, because it is often the case that a very considerable fraction of the peritoneum is not involved at all in the

disease, in spite of clinical appearances, and may even have escaped contact with the irrigating fluid used at the operation. One of the most unsatisfactory parts of the question is that concerning safe and efficacious drainage. The rapidity with which peritoneal adhesions form around such a focus of irritation as that caused by a strand of gauze packing is well known, but the effect of this process upon the perviousness of the drain has perhaps not received the attention it deserves. The aim of the operator has always been to remove as much as possible of the inflammatory products by irrigation, and then to provide efficient drainage for a period of at least forty-eight hours. It has been recognized that it is not possible to disinfect the peritoneal cavity, but there has always been hope that the peritoneum would be left in a condition to cope with the remaining infectious matter, and would take care of any new septic products which might be formed. The peritoneum has been trusted to great lengths in this regard by some operators, and in some cases after free irrigation with salt solution and local cleansing of the site of infection, the abdomen filled with hot salt solution has been entirely closed. Successes have been reported after this method, though we hesitate to say in consequence of it, for the question of the actual extent of peritoneum involved is not always easy to settle, though this has an important bearing on the future of the case. If the peritonitis is actually general, the alexic function of the whole peritoneum is practically lost, and we should be justified in thinking that mere dilution of the poison would not prevent its entrance into the circulation. Furthermore, we must remember that by the time a true general peritonitis has developed, the human organisms must already have absorbed a considerable quantity of toxins which have begun their harmful work on the nervous centers with great promptness. In cases in which, at the time of operation, although clinically having every evidence of general peritoneal involvement, we find, in consequence of the lack of the customary adhesions, coils of more or less uninvolved intestine, the possibilities of a favorable manifestation of the protecting power of the peritoneum are very considerable, and it is under such circumstances, we think, that most of the so-called cases of peritonitis are cured.

We must remember that there are several elements in cases of general peritonitis which add to and in fact constitute the basis of the gravity of the disease, besides the condition of the peritoneal mem-

brane itself. There is more to do in fighting this disease than simply to remove the inflammatory products in the peritoneal cavity, and to prevent their reaccumulation. Tympanites from intestinal paresis, with the consequent absorption of toxins from the putrefying intestinal contents, is a very serious element in the disease, dangerous and unsatisfactory to treat. If this condition is well developed, it would be impossible to put any quantity of salt solution into the abdominal cavity and then close the wound. The consensus of opinion at present in regard to the disease under consideration seems to be that it is almost impossible to save a case of general peritonitis, and that our chances of success by what are now commonly accepted methods of treatment are inversely proportional to the extent of peritoneum involved. Surgeons are apparently pretty well agreed that it is best not to resort to general abdominal irrigation, if possible, and that in any case the cleansing of the peritoneum shall first be undertaken carefully and methodically from the point of infection outward. If we can ever have an apparatus to supply hot salt solution continuously, and thus establish the same system that has been used in joints, we might save some otherwise hopeless cases of general peritoneal inflammation; but, until we can, the weight of evidence seems to be that there must be some provision for drainage.—*Editorial in Medical Record*, Dec. 23, 1899.

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**TRAUMATIC RUPTURE OF THE LIVER, KIDNEY AND LUNG.**—Alexander B. Johnson (*Annals of Surgery*, February, 1900) reports the case of a boy aged 7 years, who, while playing in the street, had been knocked down by a heavy wagon, one or more of the wheels of which had passed across the middle of his body. He was suffering from a marked degree of shock, his skin was cold and bathed in a clammy sweat, he was pale, his pulse was rapid and weak, and his respiration superficial. He vomited occasionally small quantities of clotted blood and mucus. There were no wounds of the skin except two abrasions upon the right side of the thorax near the clavicle. The abdomen was distended moderately, uniformly tender, and gave the signs of free fluid in the abdominal cavity. He appeared to be in a dying condition, and was stimulated by means of whiskey and strychnin hypodermically.

A median abdominal incision was made from the ensiform cartilage to the umbilicus. Upon opening the peritoneum considerable

fluid blood, with numerous small fragments of liver tissue, escaped. The alimentary canal was inspected throughout, but no rupture was found. Blood appeared to be flowing from between the upper surface of the right lobe of the liver and the diaphragm. Examination of the right kidney revealed a transverse rupture of the organ, which appeared to extend nearly through its entire substance. The peritoneum in front of the kidney was not torn, and the hematoma was so small as scarcely to be noticeable. The spleen and the left kidney were not injured.

The hand was introduced between the liver and the diaphragm, and a ragged tear was felt in the right border of the right lobe of the liver not far from the posterior surface of the organ. The suspensory ligament of the liver was then partly divided and the anterior border of the right lobe depressed. It could then be seen that the right lobe of the liver had been torn away from its posterior attachment to the diaphragm, leaving the extreme right portions of the right lobe still attached. The fissure between the two portions of the liver gaped widely; the edges of the fissure were extensively pulpified; the bleeding had almost ceased. The peritoneal cavity was thoroughly flushed with hot normal salt solution and dried with pads of gauze. The right border of the fissure in the liver was lightly packed with sterile gauze, which was led out over the upper surface of the liver through the abdominal wound; the liver was then pushed back into place and held there by a large wedge of sterile gauze pressed against its posterior border and lower surface. At this time the patient was in a condition of collapse, which was, however, relieved by an intravenous infusion of 1100 cubic centimeters of saline solution at a temperature of 118°F.

Upon the following day the entire right side of the patient's thorax was the seat of subcutaneous emphysema. Careful search failed to reveal a fractured rib. He coughed and expectorated small amounts of bright fluid and clotted blood from time to time.

He remained exceedingly weak, and was nourished chiefly by nutrient enemata for the first twenty-four hours. For three days his urine contained a moderate amount of blood. His temperature was moderately elevated for several weeks, and his pulse remained rapid, not becoming as slow as 120 until the tenth day.

Considerable oozing of blood persisted for several days into the dressing, which was followed by a bright yellow, thin discharge,

profuse in amount and suggesting eggnog in appearance. This resemblance was so marked that the child believed that the eggnog which he drank escaped immediately through the wound. It was thought possible that an opening might exist in the esophagus at its junction with the stomach, but methyl blue solution administered by mouth did not appear in the wound. Microscopic examination showed the discharge to consist of disintegrated liver tissue and pus, and chemical tests showed the presence of bile.

The convalescence of this patient was very slowly established. He remained delirious or semi-unconscious and apathetic for nearly one month; the large, deep cavity continued to discharge freely, and diminished in size very slowly indeed. He was not in an afebrile condition until one month after the injury. It was two months before the wound of the abdomen was entirely healed. He remained in bed until the end of six weeks, after which his nutrition improved rapidly, and he left the hospital one hundred and fourteen days after the injury, well nourished and physically active, with a comparatively small and firm abdominal scar.

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RECURRENT SPINDLE-CELL SARCOMA WITH GLANDULAR INVOLVEMENT, TREATED SUCCESSFULLY WITH THE MIXED TOXINS.—Dr. Wm. B. Coley reports the case of a man 40 years of age, a carpenter by occupation. In September, 1896, he had first noticed a swelling in the parotid gland. This had gradually increased in size, until it was as large as an English walnut. It had then been removed by operation in March, 1897. It had quickly recurred, and had grown more rapidly, so that in May, 1897, a second operation had been performed, when it had been found impossible to remove the whole tumor. The latter had continued to grow, and by July, 1897, had involved the submaxillary gland. Having at this time been regarded as a totally inoperable case, the use of the mixed toxins of erysipelas and bacillus prodigiosus had been begun. Very little improvement having been noticed after three weeks of this treatment, the patient had been referred to Dr. Coley for advice and treatment. Inasmuch as only moderate doses had been given, and in view of the fact that the patient's general condition was sufficiently good to warrant giving very large doses, it had been decided to give this treatment a further trial. Physical examination at that time had shown a tumor occupying the entire left

parotid region, and extending from the left auditory meatus forward nearly to the angle of the mouth, and from the angle of the jaw nearly to the orbit. The tumor was circular in shape, and measured three and one-half by four inches in diameter. It was markedly protuberant and ulcerated in the central portion over an area the size of a silver half-dollar. Just beneath the angle of the jaw was a secondary tumor the size of a hickory nut. The tumor had every appearance clinically of malignancy and was hopelessly inoperable. The microscopic examination made had shown the growth to be a spindle-celled sarcoma. Daily injections of the mixed toxins had been made directly into the tumor, and the dose had been rapidly increased up to the point of giving a severe chill and a temperature reaction of 104° or 105° F. After about a week slight improvement had been noticed, as evidenced by diminished vascularity and decrease in size. This improvement had steadily continued, and the treatment had been kept up about ten weeks. At the end of this time the neoplasm had apparently disappeared, leaving a bright granulating area in the region of the ulceration. This had rapidly cicatrized, and a few weeks later the patient had been presented to the New York Surgical Society entirely free from any trace of the tumor. He had remained in good health up to the present time, nearly two years and a half since the beginning of the treatment.—*Medical Record*, Jan. 20, 1900.

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THE SIGNIFICANCE OF INTRA-OCULAR HEMORRHAGE AS TO PROGNOSIS OF LIFE.—Charles Stedman Bull, M.D., N. Y., says :

“Summarizing what has preceded, the following conclusions have been drawn from my experience :

1. Hemorrhages into, and beneath the conjunctiva are of little importance in the young, as they usually occur as a result of violent muscular effort, as in coughing and long-continued sneezing. The vessels in the conjunctiva having little or no support in the loose connective tissue, readily give way to paroxysms of violent expiration. In the aged they occur spontaneously and point to a general weakened condition of the vascular walls.

2. Hemorrhages in the interior of the eye are always of prognostic significance. In senile angio-sclérosis retinal hemorrhages are very frequent and point significantly to the probable occurrence of cerebral apoplexy.



3. Recurrent retinal and subhyaloid hemorrhages in the young are of slight prognostic importance, especially if due to syphilis, whether inherited or acquired.

4. Hemorrhages into the vitreous in the young are of grave prognostic importance and point to the existence of general vascular degeneration.

5. In chronic interstitial nephritis and in diabetes retinal hemorrhages are of very grave prognostic significance, and independently of the presence of exudative retinitis point to a fatal termination of the disease. The mere presence of thrombosis of the central retinal vein with hemorrhages in the retina should arouse suspicion of the existence of albuminuria, and if this suspicion is confirmed by urinary analysis the prognosis in the case is more unfavorable than in those cases in which the hemorrhages do not exist."—*Medical Record*, February 3, 1900.

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SOME OF THE RECENT REMEDIAL MEASURES WHICH HAVE COME TO STAY.—(Editorial in *Therapeutic Gazette*, Jan. 15, 1900). One of the newer therapeutic measures which offers considerable advantage in the treatment of grave and pressing complications is the hypodermic injection of sterilized salt solutions containing gelatin, for the purpose of arresting hemorrhages which cannot be stopped by means of direct application or compresses. This method, which is supposed to act by very materially increasing the coagulability of the blood, has been employed to such a large extent in France that it is there recognized as being a wise procedure, and in our own experience with it in this country it has given results which justify a continuance of its employment. It is hardly necessary to point out that these gelatin saline injections must be given under the strictest antiseptic precautions both in regard to the preparation of the skin of the patients, the solution itself, and the needle and syringe with which it is administered. The injections have apparently given good results in forming the clots in the aneurismal sacs, in arresting pulmonary hemorrhages, and in controlling other more constant but less active loss of blood. The injections commonly employed consist of eighteen grains of sodium chloride, in two ounces of distilled water, which should be administered with an antitoxin syringe, divided in two doses of one ounce each. When aneurism is to be treated by this method, an injection every day

or every other day is sufficient. In more pressing cases where the gelatin is to be used but for a short time, two injections may be given in the same twenty-four hours.

Another remedy which is surely obtaining a very definite therapeutic rank is taka-diastrase, the ferment obtained by the process of Takamine, of Japan, and which is used for the treatment of those very common forms of dyspepsia arising from faulty digestion of the starches. There is no doubt whatever that this substance given in capsules alone or combined with some bitter substance like nuxvomica, or some general tonic like arsenic, will often give an immense amount of relief.

Still another preparation of even more recent introduction is heroin, which is the diacetic acid-ester of morphin. This preparation has been introduced into medicine for the purpose of allaying cough, and is substituted for codein. It has a great advantage in that it is poisonous only when given in a dose which exceeds by one hundred times that dose which is therapeutically efficacious. It is supposed to produce sedation of the peripheral sensory nerves of the respiratory tract without depressing the respiratory center. Indeed it is claimed that under its influence the respiratory activity is increased rather than decreased, and therefore that under its use the same disadvantages do not arise as when morphin or codein is employed to allay cough. The dose, it will be remembered, is from one-sixth to one-third of a grain.

Still another remedy which has certainly come to stay is holocain, which finds its chief usefulness in ophthalmic surgery as a local anesthetic. It possesses certain advantages over cocain in that it does not cause mydriasis, and therefore does not tend to increase tension. It does not affect accommodation. It produces a greater degree of anesthesia of the iris than does cocain. It relieves severe and painful inflammation which resists cocain, and unless swallowed or injected subcutaneously does not produce poisoning. Finally and very important, it has no roughening influence on the cornea, and is strongly antiseptic in its action. On the other hand it does not tend to control hemorrhage as does cocain, since it does not cause primary contraction of the blood vessels. It may be employed in  $\frac{1}{2}$  to 1 per cent. solution.

Still another drug which possesses very great usefulness is urotropin, a compound containing formaldehyd, which on being ab-

sorbed, is decomposed so that the formaldehyd is set free in the urine, exercising its powerful antiseptic influence. As a result it has proved itself of very great value in the treatment of cystitis associated with phosphatic and alkaline urine, not only exercising a useful, permanent influence, but often giving relief after a very few doses have been taken. It has also been found by Richardson to be a valuable drug for the purpose of preventing the spread of infection by typhoid fever germs, since it so disinfects the urine of typhoid patients that the bacillus of Eberth is destroyed. The dose of urotropin commonly employed is eight grains dissolved in half to one tumblerful of water, and taken three times a day.

Another drug is apocynum cannabinum, a medicinal plant to which considerable attention has been paid during the past year. A good fluid extract of this drug, in the dose of from one to five minims, twice, thrice, or four times a day, is capable of giving very great relief in cases of cardiac dropsy, both by its influence upon the heart and upon the kidneys. In overdoses it is apt to act as a violent purgative, and care should be taken that too great irritation of the gastro-intestinal tract is not produced by its use. Care should always be taken that the apocynum cannabinum is used, and that apocynum androsemifolium is not dispensed for it.

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PRELIMINARY REPORT OF A CASE OF ACUTE GENERAL SEPTIC PERITONITIS TREATED BY CONTINUOUS IRRIGATION WITH WARM NORMAL SALT SOLUTION.—In an article in which he details a case treated as described in the title of this note, Laplace reaches the following conclusions:

1. The peritoneal cavity stands with perfect safety a continuous irrigation with normal salt solution at a temperature of 100° during seventy-four hours.
2. In his case the infection of the peritoneum, which had been so violent and rapid, effectually ceased under this treatment. The symptoms—pain, vomiting and distension—ceased, and there was no constipation.
3. The patient stood the irrigation with comfort; not complaining of cold, for the warm water was so copious in its flow as not to have time to cool.
4. The copious irrigation, it is believed, dissolved and carried off the toxins as they formed; it reached the most dependent por-

tions of the peritoneal cavity, and removed infectious material; therefore, effectual drainage was established. It acted as a tonic to the heart. No doubt some of this solution was absorbed into the system. During three days the infection was held in abeyance by the antiseptic action of the salt, and phagocytosis had free scope to destroy the infectious bacteria permanently.

5. This method has not, to Dr. Laplace's knowledge, been used before. It had given benefit in an apparently hopeless case. The method is in accord with already well established surgical principles, and only novel in its application to the peritoneum. It may prove a valuable aid in the treatment of heretofore fatal cases of peritonitis, and Dr. Laplace trusts, therefore, that it may be worthy of further trial.—*Therapeutic Gazette*, Jan., 1900.

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**TAKING COLD.**—Dr. F. H. Bosworth, (*N. Y. Medical Journal*, Jan. 27, 1900) says: "It has always seemed to me that the expression 'taking cold' is susceptible of criticism. A cold in the head or an acute rhinitis, bears somewhat the same relation to 'taking cold' that the roseola of syphilis does to the disease in the blood, or that the eruption of scarlet fever does to scarlet fever. It is a great mistake to say that taking cold is a cold in the head. Acute rhinitis is simply the local manifestation of the general disturbance. We are protected from the dangers and menaces of the world by the outer coating of the body, viz., the skin, and when it ceases to protect us we become liable to colds. It is through the skin that we feel and contract colds. If we are not protected by the skin from low temperature we take cold. Why then are we not protected? The Lord sent us into this world with ample protection. We live in hot rooms and pile on clothing until the function of the skin is put to sleep, as it were. I long ago made up my mind that it was impossible to treat successfully these affections unless we taught our patients how properly to protect themselves from suffering from exposure in our great changes of temperature. This is only accomplished by teaching them those simple sanitary measures which protect them from taking cold and thus restoring to them what they have practically abolished. Those functions with which nature has endowed us tend to quit if we do not give them something to do. The best and practically the only protection against taking cold is a good vigorous, circulation—that is, a good capillary circulation

in the skin. We must give it exercise if we want it to do us good and if we do not give the skin exercise it quits. How do we put the skin to sleep? By simply piling on heavy clothing. We keep the skin in order by wearing thin clothes, suitable for the different changes in temperature. By putting on clothing we protect ourselves from suffering and the discomforts of low temperature, but thereby render ourselves exceedingly sensitive to exposure.

"There are two measures that are absolutely essential as aids to treatment in the management of so-called catarrhal cases, and what I mean by catarrhal cases are adenoids, rhinitis, etc. In the first place forbid all patients from wearing more clothing than is absolutely necessary. I recall a book, in which the author recommended patients to wear six suits of underwear during the year, changing them according to the rise and fall of the temperature. No teaching, it seems to me, could be more pernicious. One rarely changes his underwear without taking cold. We should get along with as little clothing and as few changes as possible. There are some rules I insist upon. One of them is to instruct my patients to wear but one suit of woollen underwear. Too much clothing not only renders the skin circulation sluggish, but hampers the great function of the skin—perspiration. Most of our woollen manufacturers in making up woollen underwear put the prickly side on the inside, and the dressed or smooth side on the outside, a feature exceedingly irritating to a sensitive skin. And so it is a good plan to tell such a patient to have his underwear made wrong side out. I would recommend one suit of underwear or a combination suit, if it is the right material, with short sleeves and low neck. The neck and arms are parts of the body that can be exposed with impunity. Furthermore the fabric should be as thin as is compatible with comfort.

"The next measure is the daily use of the cold bath. This beyond any other single measure promotes and stimulates a good circulation. The benefit of the cold bath is not only in its stimulation of the circulation, but also in its toning up of the nervous system. One word here as to the much vaunted Turkish bath. It would seem rather curious that we have to learn from the Turks how to bathe. Did any of you ever stop to think of the *modus operandi* of the Turkish bath? You go into a temperature say, of 185° F., and sweat and sweat. Now profuse perspiration is an abnormal

condition. I know of no earthly reason why we should sweat in this way. People say the object is to open the pores. The sweat pores, I suppose. These pores are always open; they are never closed. If you stop up the pores you are going to have a boil or an abscess. The Turkish bath is a luxury in which many indulge, but from a sanitary or hygienic point of view, I have always been skeptical as to its virtues."

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CLINICAL AND PATHOLOGIC NOTES ON SYMPATHETIC OPHTHALMIA. Gifford (*Jour. Am. Med. Asso.*, Feb., 1900) reports several cases and calls attention to three points of importance: "The first is the entire absence of the premonitory symptoms, such as photophobia, ciliary injection and asthenopia, which most books still give as the warning of danger from sympathetic ophthalmia. None of these patients, nor any of the others whom I have seen with genuine sympathetic ophthalmia, had anything of the sort. The uninjured eye felt entirely well up to the time when the appearance of inflammatory products showed that the inflammation was there and, as the event proved, in such a way as to progress steadily in spite of prompt enucleation in most of them. The second point is the importance of daily test of vision, especially in cases which are not under the constant observation of an oculist, since in the cases in which the entire course of the disease could be watched, the failure of vision was the symptom which would first have attracted the attention of a non-expert. The third point is the value of large doses of salicylate of sodium after the disease has broken out. I had treated my other cases with atropin, hot applications and mercurial inunctions without any effect that I could determine, but the influence of the salicylate in these later cases was so marked and its result on the whole so favorable that I do not hesitate to recommend it as the most important remedy that I know for the disease. It should be noted, however, that the amount used was so large as possibly to be thought excessive by some; 180 grains in the twenty-four hours had to be given in Case two, before the disease was checked. This was given in fifteen grain doses in a teaspoonful of brandy, and the patient kept in bed while the salicylate was being taken. As the boy's weight was not over 130 pounds, a full-sized man would require at least 200 grains as a proportionate dose. Perhaps it is also worth mentioning that in Case two, and in one

which I have seen, heat applied in the ordinary way—i. e., moderate-sized pieces of cloth or cotton wet with hot water and changed every half minute—seemed to act unfavorably, while the greater body of heat furnished by poultices, changed frequently, seemed to do much more good. The explanation for this may be that in these cases much of the inflammation was seated so far back in the eye that the milder heat reached the deep-seated inflammation only in such a degree as to stimulate rather than check it. I have had a similar experience in deep-seated affections of the mastoid.”

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**SOME OF THE CAUSES OF FAILURE TO RELIEVE ASTHENOPIA AND ALLIED SYMPTOMS.**—Marlow (*Medical News*, Jan. 6, 1900) says that it is by no means a rare thing for the ophthalmologist to meet with people who express the greatest disappointment, surprise and sense of injury that a train of symptoms of years' duration, due perhaps to many complications, should not be relieved by the first glasses ordered.

Fifty years ago and less the matter of getting a pair of glasses was a much simpler affair than it is today, because at that period only the simpler errors were corrected. The subjects of asthenopia were advised long periods of rest, to adopt occupations not calling for close eye work, or were sent to the farm; while many doubtless became chronic neurasthenics.

Today the causes of asthenopia are better understood, although in many directions our knowledge of the true nature of hypermetropia, the demonstration of astigmatism as a common error of refraction, and the establishment of the importance of latent deviations of the visual axes, have greatly complicated the problem of fitting glasses, as well as widened the field of usefulness of the ophthalmologist.

If more people wear glasses than formerly, it is because the symptoms recognized to be due to eye strain have greatly increased in number, and because of the demonstration of the importance of small errors, formerly neglected. With the increase in the complexity of the ocular problems presented for solution and, in the number of those seeking relief from symptoms, there are necessarily more primary failures to relieve than was formerly the case.

Patients seek the advice of one oculist, and if he fails to relieve them speedily, too often go to another. The second has to do the

same work all over again, and although he has the advantage of seeing the effect of the glasses prescribed by the first, is perhaps but little more successful.

The cases in which failure to relieve asthenopia occurs admit of fairly satisfactory classification on a clinical basis. They may be divided in the first place into two main classes: one consisting of curable cases, the other incurable cases.

The curable cases may be divided into three groups: 1. In which the failure is the fault of the patient. 2. In which it may be said to be the fault of the oculist. 3. In which it may be said to be the fault of the case, or more specifically, due to the extreme latency of some of the errors of refraction and equilibrium.

The incurable cases may be placed under two headings: 1. Congenital asthenopes—people whose eyes are incapable of a normal amount of work, independently of their refraction and muscular condition, and of the general health. 2. Cases in which the symptoms are due to organic disease of the eye or brain, or to some general disease.

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**CERTAIN EFFECTS OF BENZOIC ACID UPON THE URINE.**—Ashhurst (*Philadelphia Medical Journal*, Feb. 24, 1900) thus sums up the evident effect on the urine of the exhibition of benzoic acid:

1. An inconstant diuretic action, accompanied by a slight diminution of the acidity of the urine.

2. A retardation or absolute prevention of the occurrence of the alkaline fermentation.

3. An action in nature germicidal or inhibitory to the growth of certain microorganisms either within the bladder or when introduced into the urine after voiding, these susceptible organisms, including especially those which tend to produce the alkaline fermentation, but which develop in the urine while it is still acid.

It should further be said that on several occasions while the benzoic was being administered to dogs, the urine was found to be filled with pus, highly alkaline and extremely ammoniacal. In each of these instances the condition was proved to be due to the discharging of a hypodermic abscess into the vessel in which the urine was collected. These samples were thrown out of the calculation. From this it appears that if an overwhelming quantity of septic material be present in or be introduced into the urine, even



the administration of benzoic acid will not prevent the urea from being broken up and the carbonate of ammonium from being formed. In this connection it may be said in regard to the therapeutic use of benzoic acid, that when there is a very large amount of residual urine, and a firmly established ammoniacal cystitis, the benzoic acid alone may be insufficient to render the urine acid, there being need as well to completely empty the bladder at sufficiently short intervals, so that the task of the benzoic acid, in coping with the bacteria, may not be rendered an impossible one by their overwhelming numbers and their entrenchment in a medium so copious and so strongly alkaline that no possible amount of normally acid urine can neutralize its alkalinity. As the alkalinity itself is a necessary condition to the development of most forms of bacteria, it is probable that in such a case, if the residual urine could but be kept acid for a few days, the bacteria that are immune to the effects of the benzoic acid could then maintain the acidity of the bladder-contents, by preventing the growth of such alkaline fermentative organisms as ordinarily would be liable to develop in the acid medium.

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**A PATHOGNOMONIC SIGN (KOPLIK) OF THE INVASION OF MEASLES.** Ross (*Columbus Medical Journal*, Feb. 1900) says that in 1896, Koplik, of New York, in a paper published in the *Archives of Pediatrics*, described a sign he had observed for a period of ten years, and taught to students and physicians, which appeared on the mucous membrane of the cheeks and the inside of the lips, usually next to the teeth, and claimed this to be absolutely pathognomonic of beginning measles, occurring at some time in all cases. One of the most interesting features was that the eruption made its appearance usually from twenty-four to seventy-two hours before the eruption on the body, thereby making certain the diagnosis without, and previous to the appearance of the exanthem.

In describing the sign, the writer quotes from Koplik's paper in which he first describes the sign. He says: "If we look into the mouth at the time of the prodromal symptoms we see a redness of the fauces, perhaps, not in all cases, a few spots on the soft and hard palate. On the buccal mucous membrane we see invariably a distinct eruption. It consists of small, irregular spots of a bright red color. In the center of each spot there is noted,

in strong daylight, a minute, bluish-white speck. These red spots with the accompanying specks of a bluish-white color are absolutely pathognomonic of beginning of measles, and when seen can be relied upon as the forerunner of the skin exanthem."

From a study of fifteen consecutive cases occurring in Koplik's clinic the following conclusions are drawn:

1. That it is a most valuable sign, rendering possible an early diagnosis, previous to the appearance of the exanthem.
  2. It is of great value in differential diagnosis. It is often impossible to differentiate true measles from röteln, erythema and scarlet fever, and when measles complicate other diseases; also diseases which simulate measles in the early stages, such as lagrippe and simple colds.
  3. It has been found to be a reliable sign, that when once seen has never failed, and is believed to be of great value in schools and hospitals and other institutions where children are congregated together.
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**NASAL RESPIRATION.**—Blake (*Columbus Medical Journal*, Feb. 1900) reviews entertainingly the subject of nasal respiration, its physiology and pathology, and emphasizes the following points:

1. Nasal respiration is the normal respiration.
  2. A proper physical and mental development depends, in a large measure, upon free nasal respiration.
  3. Nasal reflexes should command due consideration and attention.
  4. Obstruction to nasal respiration is almost always adventitious, and not due to congenital conformation; hence an obvious pathologic cause should be sought.
  5. Relief may often be afforded by the use of simple means, but more radical measures are amply justified when demanded.
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## BOOK REVIEWS.

Any medical book can be obtained through the *Lancet* at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

**A Textbook of Diseases of Women.** By Charles B. Penrose, M.D., PH.D., Professor of Gynecology in the University of Pennsylvania; Surgeon to the Gynecean Hospital, Philadelphia. Illustrated. Third edition. Revised. Price, \$3.50 net. Philadelphia: W. B. Saunders. 1900.

In less than three years this excellent book has passed through two editions, and the third is now before us. In this revised edition the book has been slightly enlarged, and every subject has been brought up to date. It is one of the best books on the diseases of women for the general practitioner and medical student. The illustrations are many, excellent and useful.

**The International Textbook of Surgery.** In two volumes. By American and British authors. Edited by J. Collins Warren, M.D., LL.D., Professor of Surgery Harvard Medical School, Boston; Surgeon to the Massachusetts General Hospital; and A. Pierce Gould, M.S., F.R.C.S., Eng. Lecturer on Practical Surgery and Teacher of Operative Surgery Middlesex Hospital Medical School; Surgeon to the Middlesex Hospital, London, England. Vol. I.—General Surgery. Handsome octavo volume of 947 pages, with 458 beautiful illustrations in the text and 9 lithographic plates. Vol. II.—Special or Regional Surgery. Prices per volume: Cloth, \$5.00 net; half morocco, \$6.00 net. W. B. Saunders, Philadelphia.

The first volume of this superb work has been received. The art and science of surgery are advancing so rapidly there is certainly a place for another excellent book of reference. All that is known in the present day of surgical pathology, symptomatology and diagnosis is clearly stated, and the treatment given is a correct guide to modern practice. The editors have shown good choice in the selection of contributors. In the first volume we note the names of Chas. McBurney, E. H. Bradford, Geo. R. Fowler, M. H. Richardson, Bland Sutton, McLane Tiffany, L. G. Pilcher, Weller Van Hook, and others equally well known as teachers and leaders in surgery. All have performed their task well. Old methods have been omitted, and in the work we find only what is practical and useful in surgery of today. We predict that for some time it will be one of the leading reference and textbooks. The illustrations are many, clear and useful.

**Recollections of a Rebel Surgeon (and other sketches); or In The Doctor's Sappy Days.** By F. E. Daniel, M.D. Illustrated. 1899. Von Boeckman, Shutze & Co., Austin, Texas.

The author has long been known to the profession as a forceful and ready writer, and this book will add much to his reputation. It is a collection of sketches dealing more or less with the duties of the Confederate army surgeons. Through them run a story of short rations, short medical supplies, inadequate help, poor hospital facilities, and a large mortality. The sketches are more or less humorous, some very humorous, and these harrowing details crop out between the lines. Incidentally we must commend Dr. Daniel on producing a humorous medical book in which the humor is always within the bounds of decency, and for the most part, of refinement, characteristics

which other works of this class have failed to realize. The book is well printed, well bound (a "red back," of course) and poorly illustrated. We will prescribe it for "that tired feeling," blues and similar ailments, and feel sure it will act well.

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**The American Yearbook of Medicine and Surgery.** Being a Yearly Digest of Scientific Progress and Authoritative Opinions in all Branches of Medicine and Surgery, drawn from Journals, Monographs and Textbooks of the leading American and Foreign Authors and Investigators, collected and arranged with critical editorial comments. In two volumes. Volume 1, Surgery; Volume 2, Medicine. By J. M. Baldy, M.D., Charles H. Burnett, M.D., J. Chalmers DaCosta, M.D., W. A. Newman Dorland, M.D., Virgil P. Gibney, M.D., C. A. Hamann, M.D., Howard F. Hansell, M.D., Barton Cooke Hirst, M.D., E. Fletcher Ingalls, M.D., W. W. Keen, M.D., Henry G. Ohls, M.D., Wendell Reber, M.D., J. Hilton Waterman, M.D., Samuel W. Abbott, M.D., Archibald Church, M.D., Louis A. Duhring, M.D., D. L. Edsall, M.D., Alfred Hand, Jr., M.D., Milton B. Hartzell, M.D., Reid Hunt, M.D., Wyatt Johnston, M.D., Walter Jones, M.D., David Reisman, M.D., Louis Starr, M.D., Alfred Stengel, M.D., A. A. Stevens, M.D., G. N. Stewart, M.D., Reynold W. Wilcox, M.D. Under the general editorial charge of Geo. M. Gould, M.D. W. B. Saunders, Philadelphia. 1900. Cloth, \$3.00; half morocco, \$3.75 per volume.

This yearbook has established such an excellent reputation for itself that we feel that in announcing its appearance we do all that is necessary. The list of compilers comprises names so well identified with progress in medicine and surgery that they are a guarantee of the completeness of the work. No one can fully cover in his reading all that is published during a year, and it is of inestimable value to have the literature reviewed by a body of men well qualified to cull that which is good and presented to us in Mr. Saunders' excellent style. A very commendable new feature of this yearbook is its division into two volumes. So many men are interested only in a certain branch of medical science that much of the material in a yearbook is of little value to them, and when put into one volume makes a somewhat unwieldy book. This is obviated by dividing the work into two volumes as above indicated, the two being sold for the old price of the one volume. We heartily recommend this book to all who wish to have in their library an epitome of the progress of medicine in 1899, the matter being carefully edited and critically reviewed by competent men.

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**Christian Science.** An Exposition. By William A. Purrington, Lecturer in the University and Bellevue Hospital Medical College, and in the New York College of Dentistry upon Law in Relation to Medical Practice; One of the Authors of "A System of Legal Medicine." New York: E. B. Treat & Co, 241-243 West Twenty-Third Street. 1900. Price \$1.00.

This book is composed of a number of papers which have appeared in the North American Review, New York Medical Record, New York Sun, and of several addresses delivered by the author of the book before certain medical societies. It comprises about 200 pages written in a lucid and clear style. It is intended to expose the dangerous teachings of Christian science, and contains as a frontispiece a photograph of a gangrenous foot of a child treated by a "healer." The author does not question the sincerity of the disciples of Mrs. Eddy, but denies their power to cure ailments. There is a copious index of droll absurdities of expression used by Christian Science's discoverer, Mrs. Eddy. The book is a splendid exposition of the fallacies of Eddyism and deserves a wide circulation in the hope that it may fulfill the purpose for which it was intended.

**A Manual of the Practice of Medicine Prepared Especially for Students.** By A. A. Stevens, A.M., M.D., Professor of Pathology in the Woman's Medical College of Pennsylvania; Lecturer on Terminology and Instructor in Physical Diagnosis in the University of Pennsylvania; Physician to the St. Agnes Hospital and to the Out-Patient Department of the Episcopal Hospital, etc. Fifth edition. Revised and enlarged. Illustrated. W. B. Saunders, Philadelphia. 1898.

Small books on medical subjects have a well-defined, though limited sphere. The subject of the Practice of Medicine is exceedingly well presented in this volume, and throughout can be seen the work of one familiar with teaching medical students, for whom the book is especially intended. The author will be pleasantly remembered by many who profited by his instruction, as students, and who, as practitioners, will find the matter concisely and accurately set forth. The presswork is very good, and the book is bound in flexible leather. We commend it as a handy book for refreshing the memory, and find nothing in it to criticise, but much to praise.

## BOOKS AND PAMPHLETS RECEIVED.

*The American Yearbook of Medicine and Surgery.* Being a Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, drawn from Journals, Monographs and Textbooks of the Leading American and Foreign Authors and Investigators, collected and arranged with critical editorial comments. In two volumes. Volume 1, Surgery; Volume 2, Medicine. By J. M. Baldy, M.D., Chas. H. Burnett, M.D., J. Chalmers DaCosta, M.D., W. A. Newman Dorland, M.D., Virgil P. Gibney, M.D., C. A. Hamann, M.D., Howard F. Hansell, M.D., Barton Cooke Hirst, M.D., E. Fletcher Ingals, M.D., W. W. Keen, M.D., Henry G. Ohls, M.D., Wendell Reber, M.D., J. Hilton Waterman, M.D., Samuel W. Abbott, M.D., Archibald Church, M.D., Louis A. Duhring, M.D., D. L. Edsall, M.D., Alfred Hand, Jr., M.D., Milton B. Hartzell, M.D., Reid Hunt, M.D., Wyatt Johnson, M.D., Walter Jones, M.D., David Reisman, M.D., Louis Starr, M.D., Alfred Stengel, M.D., A. A. Stevens, M.D., G. N. Stewart, M.D., Reynold W. Wilcox, M.D. Under the general editorial charge of Geo. M. Gould, M.D. W. B. Saunders, Philadelphia. 1900. Cloth, \$3.00; half morocco, \$3.75 per volume.

*Christian Science.* An Exposition of Mrs. Eddy's Wonderful Discovery, including its Legal Aspects. A Plea for Children and other Helpless Sick. By William A. Purrington, Lecturer in the University and Bellevue Hospital Medical College, and in the New York College of Dentistry upon Law in Relation to Medical Prac-

tice; one of the authors of "A System of Legal Medicine." New York: E. B. Treat & Co. 1900.

*A Manual of the Practice of Medicine.* Prepared Especially for Students. By A. A. Stevens, M.D., Professor of Pathology in the Woman's College of Pennsylvania; Lecturer on Terminology and Instructor in Physical Diagnosis in the University of Pennsylvania; Physician to St. Agnes' Hospital and to the Out-Patient Department of the Episcopal Hospital, etc. Fifth Edition. Revised and enlarged. Illustrated. Philadelphia: W. B. Saunders. 1898.

*A Textbook of Diseases of Women.* By Charles B. Penrose, M.D., PH.D., Professor of Gynecology in the University of Pennsylvania; Surgeon to the Gynecean Hospital, Philadelphia. Illustrated. Third edition. Revised. Philadelphia: W. B. Saunders. 1900.

*Recollections of a Rebel Surgeon (and other sketches); or In The Doctor's Sappy Days.* By F. E. Daniel, M.D. Illustrated. 1899. Von Boeckman, Schutze & Co., Austin, Texas. Price \$1.00.

*Obstipation.* A Practical Monograph on the Disorders and Diseases of the Rectal Valve. By Thomas Charles Martin, PH. M.D., of Cleveland, Ohio; Fellow of the American Proctologic Society; Professor of Proctology in the Cleveland College of Physicians and Surgeons: Proctologist to the Cleveland General Hospital, etc. (Reprinted from the August number of the *Philadelphia Monthly Medical Journal*.) The Philadelphia Medical Publishing Co. 1899.

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*Metastatic Uveitis in Both Eyes, Causing Blindness, Resulting from an Intense Inflammation of the Nose and its Accessory Sinuses.* By William Campbell Posey, M.D., Philadelphia. (Reprinted from the *New York Medical Journal*, January 22, 1898.)

*A Clinical Study of Two Hundred and Eighty-Seven Cases of Hyperphoria.* By Wm. Campbell Posey, M.D., Philadelphia. (Reprinted from the *Philadelphia Medical Journal*, April 8, 1899.)

*Report of One Hundred Consecutive Cases of Cataract Extraction.* By Sam'l Theobald, M.D., Baltimore, Md. (Reprinted from *American Journal of Ophthalmology*, December, 1899.)

*Akromegaly: With Report of a Case Presenting Some Unusual Features.* Height of Patient, Eight Feet and Six Inches. By Wm. Nicholas Lackey, M.D., of Gallatin, Tenn. (Reprinted from the *Philadelphia Medical Journal*, July 22, 1899.)

*Why Some Severe Cases of Appendicitis End in Recovery Without Operation.* By J. H. Carstens, M.D., Detroit. (Reprinted from the *New York Medical Journal* for August 12, 1899.)

*Pulmonary Tuberculosis.* Report of Cases Treated with Intra-pleural Injection of Nitrogen, with a Consideration of the Pathology of Compression of a Tuberculous Lung. By A. F. Lemke, M.D., Chicago. (Reprinted from the *Journal of the American Medical Association*, October 14, 21, 28, 1899.)

*A Contribution to the Etiology of Pompholyx.* By Martin F. Engman, M.D. (Reprinted from the *Medical Review*, November 11, 1899.)

*Prognosis of Laryngeal Tuberculosis.* By Robert Levy, M.D., Denver, Col. (Reprinted from the *Journal of the American Medical Association*, September 16, 1899.)

*Sinus-Thrombosis; Cure Without Opening the Sinus.* By Robert Levy, M.D., Denver, Col. (Reprinted from the *Laryngoscope*, St. Louis, August, 1899.)

*Lessons from Two Hundred and Twenty-Four Consecutive Abdominal Sections.* By J. H. Carstens, M.D., Detroit, Mich. (Reprinted from the *American Journal of Obstetrics and Diseases of Women and Children*, vol. 29, no. 5, 1899.)

*The Municipal Control of Prostitution in the United States.* Some Opinions as to the Methods Adapted to Municipal Care and Control of Prostitution and Venereal Diseases. By Isadore Dyer, PH. B. (Yale) M.D. (Reprinted from the *New Orleans Medical and Surgical Journal*.)

*Some Practical Remarks on the Anatomy of the Temporal Bone, with Demonstrations.* By Emil Amberg, M.D., Detroit, Mich. (Reprinted from November number, 1899, *Physician and Surgeon*, Detroit and Ann Arbor.)

*Meatus with Abnormal Direction.* By Emil Amberg, M.D., Detroit, Mich. (Reprinted from the *Physician and Surgeon*, Detroit.)

*Demonstration of Some New Ear Instruments.* Emil Amberg, M.D., Detroit, Mich. (Read before Michigan State Medical Society at Kalamazoo, May 4 and 5.)

*A New Ear Syringe.* By Emil Amberg, M.D., Detroit, Mich. (Reprinted from the *Medical Record*, May 27, 1899.)

*Ear Complications of Influenza.* By Emil Amberg, Detroit.

*New Laboratory Apparatus.* (Reprinted from the *Journal of Applied Microscopy*, vol. 2, no. 10.)

*The Medical Treatment of Movable Kidney.* By Alfred Stengel, M.D., Philadelphia. (Reprinted from the *University Medical Magazine*, September, 1899.)

*Gastropstosis: Report of a Case in Which a New Operation was Undertaken and the Patient Greatly Improved.* By Alfred Stengel, M.D., and Henry D. Beyea, M.D., of Philadelphia. (Reprinted from the *American Journal of Medical Sciences*, June, 1899.)

*The Propagation of Diseases by Means of Insects, with Special Consideration of the Common Domestic Types.* Address in Hygiene. Delivered before the Pennsylvania Medical Society, at its Annual Meeting, Johnstown, Pa., Wednesday, May 17, 1899. By W. M. L. Coplin, M.D. (Reprinted from the *Philadelphia Medical Journal*, June 10, 1899.)

*A Case of Diabetes Mellitus Quickly Following Mumps.* On the Pathological Alterations of the Salivary Glands, Closely Resembling Those Found in the Pancreas in a Case of Diabetes Mellitus. By H. F. Harris, M.D. (Reprinted from the *Boston Medical and Surgical Journal* of May, 18, 1899.)

*Clinical Notes from the Gynecological Service of the Howard Hospital.* By Barton Cooke Hirst, M.D., Philadelphia. (Reprinted from the *University Medical Magazine*, November, 1899.)

*Acute Inflammation of the Middle Ear, Complicating Scarlet Fever and Measles.* By Charles H. May, M.D., of New York. (Reprinted from "*Archives of Pediatrics*," July 1899.)

## NEWS AND NOTES.

MR. W. C. DAVIS has been re-elected superintendent of the city hospital.

DR. T. E. EDWARDS has gone to Mexico and will be absent about three months.

DR. WIRT JOHNSON, a well-known practitioner of Jackson, Miss., died last month.

THE Central Tennessee College, of Nashville, graduate a medical class of thirty-eight on February 21.

DR. LAUDER BRUNTON, the well-known English physiologist, and formerly in charge of the celebrated Hyderabad Chloroform Commission, has been knighted.



THE LANCET extends its sympathy to Dr. R. W. Barton, of Marion, Ark., in the loss of his wife, and to Dr. L. A. Drouillard, of this city, whose mother recently died.

DR. ERNEST V. SANGREE, professor of bacteriology and pathology in the University of Illinois, died on February 23, of meningitis. He was formerly connected with Vanderbilt University, Nashville.

DR. LEWELLYS F. BARKER, associate professor of anatomy and assistant pathologist of Johns Hopkins Hospital, Baltimore, has accepted the professorship of anatomy in the University of Chicago and Rusk Medical College.

THE City Council has reduced the number of physicians on the staff of the city hospital by two physicians and two surgeons. This makes the size of the staff in these departments as originally provided for—four physicians and four surgeons.

THE following changes have been made in the staff of St. Joseph's Hospital: Dr. W. B. Rogers retires from the position of visiting surgeon and is appointed consulting surgeon. Dr. F. D. Smythe is appointed visiting surgeon and Dr. E. E. Haynes visiting gynecologist.

THE annual meeting of the Tennessee State Medical Society will be held in Knoxville on April 10, 11 and 12. Dr. D. E. Nelson, of Chattanooga, is President; Dr. W. D. Haggard, Jr., of Nashville, Secretary, and Dr. S. R. Miller, of Knoxville, chairman of the committee on arrangements.

THE ILLUSTRATED LONDON NEWS publishes pictures of Dr. W. Watson Cheyne and Sir Wm. Thomson, both of whom have gone to South Africa for duty with the British troops. Mr. Treves, Dr. Conan Doyle and others are also at the front professionally, the latter having the charge of an ambulance corps.

THE report has been circulated that the New Orleans Polyclinic has been suspended on account of smallpox in New Orleans. This statement is absolutely false. The Polyclinic has had a continuous course since November 20, and will continue until May 12. The smallpox situation in New Orleans has at no time justified any apprehension on the part of students attending the Polyclinic or on the part of those who might wish to do so.

At the request of the French Society of Electrotherapy and Radiology, the International Congress of Medical Electrolgy and

Radiology is connected to the International Congress of 1900. This Congress will take place in Paris, from the 27th of July to the 1st of August, 1900. All inquiries for further information must be forwarded to Prof. E. Doumer, General Secretary, 57 Rue Nicholas-Leblanc, Lille.

THE Wayne County (Mich.) Medical Society is agitating the subject of obtaining uniform requirements and reciprocity in the matter of licenses among the different State medical examining boards. From their committee's report, we learn that replies have been received from fifty boards, forty-two being favorable, three unfavorable and five undecided. Of course uniform requirements must first be obtained. We are much in favor of the plan but fear it will be long in maturing, though such an agreement between a few States might be made as a beginning.

THE following ordinance explains itself:

*Be it ordained by the Legislative Council of the City of Memphis,* That hereafter it shall be a misdemeanor for any person to spit on any sidewalk within the limits of the City of Memphis, or upon the walks in any public square in said city, or upon the floor or platform of any street car operating within the city limits, or upon the platforms of railroad stations, or upon the floor of any railroad passenger stations within the city.

Any person violating this ordinance shall be fined not less than \$2 nor more than \$25 for each and every offense.

Passed third and final reading February 28, 1900.

Attest: W. B. ARMOUR, Secy. J. J. WILLIAMS, Mayor.

THE Twenty-fifth Annual Meeting of the American Academy of Medicine will be held at "The Shelburne" on the beach at the end of Michigan avenue, Atlantic City, N. J., on Saturday, June 2d and Monday, June 4th, 1900.

The following papers are promised, and titles given are subject to revision.

1. President's Address. Dr. G. Hudson Makuen, Philadelphia.
- Contributions to the Annual Symposium—"The Medical Aspects of the Home."
2. "What are the Essential Conditions for a Habitation to Develop and Maintain a Healthful Family Existence?" Dr. Rosa Engelmann, Chicago.
3. "The Influence of Early Training of Manly and Womanly Qualities to Avoid Degeneracy." Dr. J. Cheston Morris, Philadelphia.
4. "Artificial Lighting of the Home." S. D. Risley, Philadelphia.
5. "The Influence of Medical Supervision of Children in their Homes." Dr. J. Madison Taylor, Philadelphia.
6. "The Physician's Influence in *re* Vacation Schools." Dr. Helen C. Putnam, Providence.

7. "Defectives and Delinquents Inside and Outside the Family Circle." Dr. James W. Walk, Philadelphia.

Papers on miscellaneous topics:

8. "Is Coöperation Between Colleges of Arts and Sciences and Schools of Medicine Desirable?" Dr. A. L. Benedict, Buffalo.
9. "Physiologic Psychology as a Necessary Element in Medicine." Dr. W. J. Herdman, Ann Arbor.
10. "Medical Education of Today." Dr. Bayard Holmes, Chicago.
11. "Neglected Clinical Opportunities in American Medical Centers." Dr. S. A. Knopf, New York.
12. Subject to be announced. Dr. W. L. Pyle, Philadelphia.
13. "The Physician vs. Medical Proprietors and Medical Patentees." Dr. A. Ravogli, Cincinnati.
14. "Medicine in the Philippines." Dr. Harry Park Ritchie, St. Paul, recently on medical duty with the U. S. V. in Luzon.
15. Report of Special Committee to formulate the conclusion reached regarding Specialism and Advertising at the last meeting of the Academy.

### THE LEPER.—

Unfavored of God's kind,  
And set apart, a curse;  
A living death for men to pity,  
As they shudder at the worse  
Than sin, or pain, or shame  
Of *It*; for can a name  
Be borne by one of these?

Not spotted white, nor snowy clean,  
As Bible tales remark it;  
But, bursting through a boiling skin  
Of lumps and bumps, a thickened mass  
Of bronzed and blackened human kin.  
With here and there a spot of brown  
Or lighter hue, while over all a tint of red  
By Nature's thrown, as if to hide the frown  
Which masks the soul of those  
Who bear the burden of the blight.

Nor king nor serf the scourge hath spared,  
And as the ages into æons run,  
These sightless, voiceless human parodies  
Will breathe the tones of the Unblest,  
Accursed by all, marked by Fate  
As victims of the great Unrest,  
The Morbid in the True, too late  
To save their souls for better things.  
And so the fell decree makes members  
One by one to fall, until at last  
The end finds semblance only of a past,  
A trace alone of kinship to the race  
Which bore it, in this, a mass  
Of tissues, human once, but now  
Distorted, framed and bound in shapes  
Fantastic in their frightful symmetry,  
And shorn of everything but form.—*Isadore Dyer, M.D.*

*N. O. Med. & Sur. Jour.*, March, 1900.

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# MERCUROL

(A New Chemical Compound of Nuclein with Mercury.)

Mercuriol is particularly destructive to pyogenic organisms. It exerts a selective antagonistic action upon the Gonococcus, whether found in the urethral crypts or in the conjunctival sac. In urethritis and vaginitis of specific origin, as an antiseptic dressing in abscesses, to control suppurative conditions, and in fact wherever pus-forming bacteria exist, there Mercuriol is indicated. It is neither caustic, corrosive, nor irritating.

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In half-ounce vials, per oz., 1.80  
In quarter-ounce vials,  
per oz., 1.85

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Gonorrhea, Cystitis (use  $\frac{1}{4}\%$  to  $2\%$  Sol.).  
Ocular Therapeutics (use  $2\%$  to  $5\%$  Sol.).  
Otitis Media, (use  $5\%$  to  $10\%$  Sol.).  
Ulcers and Burns (use  $5\%$  Ointment).

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Quebec. Branch Laboratories: London, Eng., and Walkerville, Ont.

## CLINICAL NOTES.

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THE steamships *City of Rome* and *State of Nebraska* have been chartered to leave New York on June 30, 1900, especially for physicians, their families and friends who desire to visit the Paris Exposition and other parts of Europe. Trip to last thirty-two days. Rates low and first-class passage. The physicians of the West are going in a body, and the physicians of Alabama, Mississippi, Louisiana, Arkansas, Tennessee and Indian Territory have been invited to go with them.

For full particulars, address G. G. BUFORD, M.D., Memphis, Tenn.

---

MAKE A NOTE OF THIS.—It is a matter of common observation that many cases of bronchitis will persist in spite of continued, varied and judicious use of expectorants. "The cough," says one prominent physician, "hangs on, harasses the patient with its frequency and severity, and is exceedingly liable to recur every winter, to become a regular 'winter cough,' with its sequelæ of emphysema, asthma and, ultimately dilatation of the right heart."

Dr. Milner Fothergill, of London, insisted that cough of this character is due to lack of tone, not only in the general system but in the blood vessels of the bronchioles. This authority demonstrated that the only successful method of treating this form of cough is by means of appropriate systemic and vascular tonic medication. It is particularly in this class of cases that Gray's Glycerine Tonic Comp. has gained a most enviable reputation. This remedy, while a most palatable and agreeable one, not only has a selective tonic and antiphlogistic action upon the respiratory mucous membrane, but it removes the ever-present element of systemic depression. The beneficial effects of Gray's Glycerine Tonic Comp. even in rebellious cases are invariable and most pronounced.

---

SANMETTO AS AN INTERNAL REMEDY FOR GENITO-URINARY CONDITIONS.—While fully realizing the superfluity of further testimonials concerning a remedy so well and favorably known to the entire medical profession as is Sanmetto, yet as I possess an extended knowledge of its reliability based on several years clinical experience and on the treatment of hundreds of cases in which it has proven itself eminently fitted to lighten the cares of the genito-urinary surgeon, I am perhaps invested with a certain authority which should permit me the privilege of adding my meed of praise. In all the inflammatory conditions of the genito-urinary tract, from the meatus to the pelvis of the kidney, the administration of Sanmetto is invariably beneficial. It not only renders the urine bland and unirritating, but also exerts a specific action on the inflamed tissues, soothing and restoring the tonicity of the parts. Its tonic action on the prostate is of such a nature that it proves of equal advantage

# Trophonine

a palatable and nutritious liquid food, contains the nutritive elements of beef, egg albumen and wheat gluten, so prepared as to be readily absorbed and aid almost immediately in the process of reconstruction. It furnishes the sick with the largest possible supply of nourishment and with the minimum tax on the digestive organs.

---

# Protonuclein

by increasing the number of Leucocytes, destroys toxic germs, increases the inherent resistance to disease, quickens glandular activity, arouses the nutritive forces, gives tone to the system, and stimulates cell-life throughout the organism.

---

# Peptenzyme

is the only perfect digestive. It digests every variety of food. In physiological activity it presents the active and mother ferments of the entire group of digestive organs. It aids digestion by furnishing an additional supply of protoplasmic material out of which active ferments are elaborated, and perfects the process by increasing cellular activity.

---

Samples and literature on request.

Reed & Carnrick,                      -                      -                      New York.

---

in cases of either hyperplasia or of atrophy, and there is no remedy so uniformly successful in the treatment of atonic impotency or pre-senility. I have found it of inestimable service in the preliminary preparation of cases requiring surgical interference, and, combined with salol, use it constantly to secure urinary antisepsis. I am fully of the opinion that Sanmetto represents all that could be hoped for or desired as an internal remedy for genito-urinary conditions. H. R. Weber, M.D., Univ. Md. School of Medicine, 1886, Member Am. Med. Assn. etc., Chicago, Ill.

---

**ACUTE RHEUMATISM.**—Dr. G. C. H. Meier, (*American Therapist*, December, 1899) states that his experience with the salicylates during the past twenty years has convinced him of the difficulty of administering them in many cases; even if given in capsules or wafers many patients object to salicylate of sodium on account of the resulting disturbances of the stomach, as evidenced by nausea, distress in the epigastrium, and even vomiting. Occasionally, he has also witnessed headache, tinnitus and vertigo during its use. These disadvantages of salicylates have led him to experiment with aspirin, a new combination of salicylic acid and acetyl, which passes unchanged through the stomach, and is not decomposed until it reaches the intestinal canal, thus avoiding any action upon the stomach. He has given aspirin in the same dose as salicylate of

sodium, and owing to its insolubility has generally placed the desired dose upon a tablespoon, adding some sugar and water. From his experience with aspirin up to date, he considers himself able to assert that its effect differs in no wise from that of salicylate of sodium, and that it has the great advantage of being entirely devoid of troublesome effects upon the stomach. This is well illustrated by the twelve cases which are reported in full in his contribution.

**DIET IN TYPHOID FEVERS.**—Fred C. Schurtleff, M.D., Los Angeles, Cal., says; Much has been written both pro and con in reference to this or that article of diet in the management of typhoid fever. It is a settled fact that the food must be fluid, highly nutritious and easy of digestion, for the maintenance of nutrition is imperative in wasting disease. Milk is probably the most extensively used, and will form the main article of diet so long as fever lasts. I have used milk in nearly all its various forms in the care of my cases from frozen or boiled sweet milk to buttermilk, from sweet milk, milk with lime water to that partially digested with pepsin or pancreatin when digestion was enfeebled. The tendency in milk diet is to overfeed by forcing too large quantities at one feeding and thereby cause a disgust for that diet upon which we have pinned our faith. If one insists upon an absolute milk diet, not infrequently you will find your patient has gone without it rather than take it. They fret under its administration, digestion is interfered with,

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alterative*

**EUROPHEN**  
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**HEROIN-HYDROCHL.**  
*The sedative for Coughs*

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*The uric acid solvent*

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*The most assimilable nutrient*

**SYCOSE**  
*The substitute for cane sugar*

**PHENACETIN**  
*The safest hypnotic*

**TRIONAL**  
*The safest hypnotic*

**SALOPHEN**  
*The antirheumatic and  
antineuralgic*

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Drugs and Chemicals . . . . .

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Crutches, Trusses, Surgical Dressings, and requisites for the sick.

---

curds swarming with bacteria of decomposition are found in the increased diarrheal discharges, plus the bacteria of typhoid fever already existing, hence the object which we wish to attain so far as it is possible, (that of rendering the gastro-intestinal tract aseptic) is defeated from the outset by error in diet. I have often been puzzled as to what to substitute for milk in this class of cases until the stomach became more tolerant. I have tried various farinaceous substances and have discarded them on account of the increase of flatulency they almost invariably produce.

For some time past I have tided my patients over their critical period by tablespoonful doses of liquid peptonoids every two hours, giving nothing else in the way of nourishment but the above remedy. I cannot speak too highly of this elegant preparation where digestion is below par, as a highly nutritious food that will not curdle upon the stomach or leave a residue in the intestinal tract. It is a slightly stimulating food, consequently your cases as a rule will require less alcoholic stimulants, a great desideratum in some cases. I do frequently carry through my cases of typhoid successfully, where no other article of diet is given from the time I make the diagnosis until convalescence is firmly established and I call the attention of the profession to it for that class of cases in which milk cannot be taken.—*Southern California Practitioner.*



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THE NEW ORLEANS POLYCLINIC.—*Thirteenth Annual Session* opens November 20, 1899—closes May 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, Louisiana.

## The Laboratory of the Board of Health.

Exchange and Front Streets, Memphis, Tenn.

### *To the Medical Profession:*

The Board of Health makes the following examinations free for the city Physicians: Exudate and sputum for diphtheria and tubercle bacilli, typhoid, and yellow fever blood reaction and malaria organisms, well and cistern water and milk.

For other work I will charge the following fees: Urinalysis, chemical and microscopical, \$2.00; including staining for tubercle bacilli, \$3.50. Quantitative for sugar, \$2.50. This covers the work necessary to make a conscientious diagnosis, and for *life insurance*. Pus for gonococci and other microorganisms, \$2.00. Feces for parasites, eggs, etc., \$5.00. Blood for typhoid and yellow fever reaction, for malaria organisms, diphtheria exudate and sputum for tubercle bacilli, \$2.00. Other examinations for poisons, etc., according to labor and material consumed.

FELIX PAQUIN, Ph. B.,

Chemist and Bacteriologist of the Board of Health.  
Member of the Association of Official Agricultural Chemists.

**DR. KEARNS'**

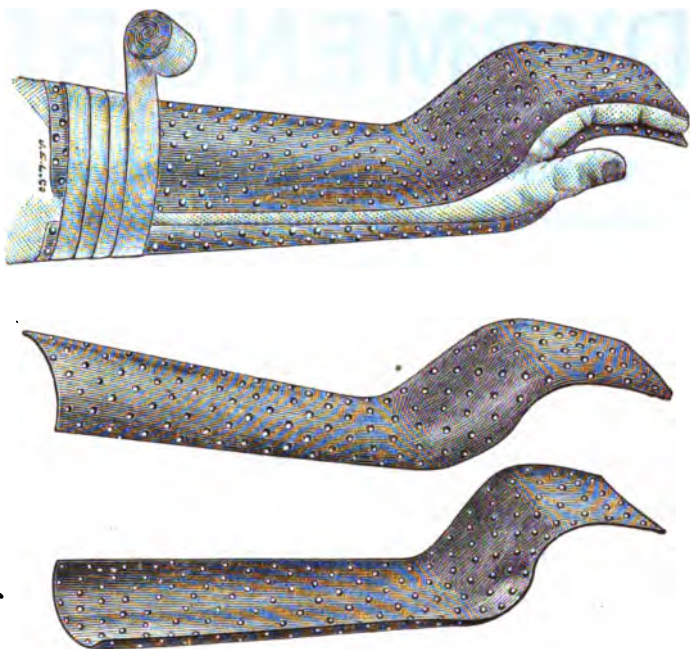
# **Retro- Flexed Metallic Splints**

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## **Fractures of the Fore-Arm**

**(Especially Colles' Fracture)**

**Aseptic,  
Indestructible,  
Perforated and  
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The metal used in the manufacture of these Splints being less than one-eightieth of an inch in thickness, makes them very light and readily conformable by bending so as to suit the peculiarities of any limb, and yet the Splints, when applied, are as firm as the heaviest wooden appliances. They fit so accurately that but little padding is required; a piece of woven lint, or of cotton or woolen flannel, is all that is necessary for their lining. A slight roughness is left on the outside of the Splints, by perforations, to prevent the bandage from slipping. They are nickel-plated to prevent oxidation. They are invaluable when the parts are lacerated, as the perforations allow ventilation, and secretions are not confined and liable to be absorbed, as in other kind of splints, but readily pass off through the numerous orifices. They do not become offensive like those made of porous materials.

These Splints are cooler, lighter in weight, thinner in material, more correct in shape, and more perfect in fit than any other Splints offered to the profession. They are all made in two sizes, one size for adults and one for children.

It is claimed that this form of the Splints, so easy and natural, prevents the common deformity, stiffness and uselessness so apt in Colles' fracture. While proper pressure is made, the wrist-bones and hand are completely protected from this undue pressure, thus preserving their integrity and skill, and avoiding ankylosis of the wrist and palm of the hand and fingers.

They are the workman's ideal Splint, and have so proved themselves through many years of continued, extensive and critical use among the most exacting of patients—the hard-laboring man—as they carefully guard the important movements of the arm and wrist in pronation and supination.

They are convenient and of great advantage in treating backward dislocations of the bones of the carpus, and separation of the epiphysis, simulating fracture of the radius.

A complete set consists of eight Splints: four adults, right and left palmar and dorsal, and four children. Each Splint is labeled and numbered from 30 to 37, inclusive, for convenience. A set will last a doctor's lifetime, as any misplaced Splint can be at once replaced, separately from a set.

They are practically, as well as theoretically, admirably adapted to Colles' fracture, and their continued, exclusive use is secured by all surgeons who have employed them.

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**Are the Sole Authorized Manufacturers in the  
U. S. A., and the Splints are  
manufactured of the**

**Lee Co.'s Patent Metallic Splint Material**

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**Pittsburg, Pa.**

# DYSMENORRHEA

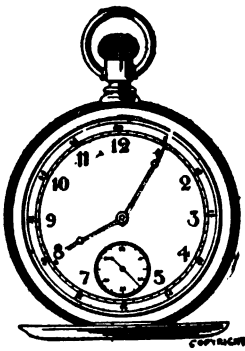
**DIOVIBURNIA** is the reliable remedy in dysmenorrhea (invaluable in congestion), relieving pain and regulating the uterine functions, possesses **antispasmodic** properties which are exerted especially on the uterus and appendages. **Unexcelled** in leucorrhea, amenorrhea, menorrhea, menorrhagia. Vomiting in pregnancy, threatened abortion, miscarriage, **parturition** and **subinvolution**. In female neurosis combine **Neurosine** (Dios) two parts to **Diovi-burnia** four parts.

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Each fluidounce contains:

Hypophosphite Soda .....	2 grains.
" Lime .....	1½ "
" Iron .....	1½ "
" Quinine .....	¾ "
" Manganese .....	1½ "
" Strychnine .....	1-16 "

Dose: One to four fluidrachms.

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Medical Director.

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No. 10, in vials of 15 c.c., 6.00; of 30 c.c., 10.00

**Tuberculinum Purificatum**—15c per cubic centimeter, in vials of 15, 30 and 50 c.c.

**Tuberculinum Kochii**—for diagnostic purposes—1 c.c. vials at 25c each.

**Antiphthisin (Klebs)**—in vials of 15 c.c., at 25c per c.c.

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HARD RUBBER  
SADDLED  
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WRITE  
FOR  
DESCRIPTIVE  
CIRCULAR

# THE MEMPHIS LANCET.

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VOLUME IV.

APRIL, 1900.

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No. 4

## ORIGINAL ARTICLES.

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### CASE OF ADVANCED EXTRA-UTERINE PREGNANCY. OPERATION SEVEN WEEKS AFTER COMPLETION OF TERM.

BY R. B. MAURY, M.D.

MEMPHIS.

The case which I here report is one of extra-uterine pregnancy occurring in a multiparous woman after eight years of sterility.

Early in the pregnancy there were the usual symptoms of tubal rupture, beginning six or seven weeks after conception with a bloody discharge like menstruation; then sudden seizure while on the street, with excruciating abdominal and pelvic pain followed by symptoms of collapse, requiring the hypodermic use of morphine for relief. The fetus survived the rupture and lived on to full term. The real nature of the case was not recognized by those in charge. Five weeks afterward the patient came under my charge, and two weeks later the operation was performed.

Mrs. —, 40 years old, having been married 19 years, was admitted for treatment October 22, 1899. Her sixth and last labor occurred in 1891. She gave a history of pelvic inflammation three years after the birth of the child. After a time her health was restored.

The last menstruation occurred November 10, 1898. On the 19th of December following, a bloody discharge appeared and continued to December 28. On that date while on the street, she was seized with severe abdominal pain, became pulseless and covered with a clammy sweat, and had to be carried upstairs to her room. Restoratives

were used and the bloody discharge ceased, but returned in forty-eight hours and lasted eight or nine days to January 7, 1899. She suffered paroxysms of pain for three days after this seizure occurred. No membrane was passed so far as she knew. She noticed during the first week in March that she was getting large. Previously weak and thin, she was now gaining flesh. At times she had cramps in the left side of the abdomen. Quickening occurred on the 22d of March. She never felt a child move so actively as this one did, but she was convinced that it was not in the right place. The breasts enlarged, and latter part of August became very tense, and there was very much colostrum in them. She expected her confinement about 20th of August. At this time she began to have slight pains in the womb and sides. She engaged a nurse and prepared for her confinement. September 5th she had pains all night and the child moved incessantly. September 12th pains returned and the child's movements were as active as ever. September 16th the movements were very vigorous. On September 17th the movements became feeble. After this they were felt no more. Those around her recognized the death of the child, but did not understand the true nature of the case. Since then the abdomen has become smaller, and the breasts have become flabby, though there is still milk in them. This brings the history to the 22d of October, when she came to me. Examination of this patient revealed a large abdominal tumor quite symmetrical in shape reaching nearly to the epigastrium. It was of elastic feel and without fluctuation, and did not present any of the bony prominences or outlines of a child. The physical examination furnished no grounds for suspecting the presence of a child. Examination through the vagina did not reveal anything which could throw light on the nature of the tumor, except that the uterus was felt close to it on the right and in front, and the *uterine cervix was open so as to admit the index finger to the internal os*. The uterine depth was nearly four inches.

I felt no doubt that the case was an extra-uterine gestation, with the placenta spread out and attached to the front wall of the fruit sac. It is interesting to note that there had been no occurrence of a "show" or bloody discharge at the time of the false labor. Indeed no time could be fixed when the false labor occurred, for the patient had pains at intervals from 20th of August to the 17th of September. Pains associated with the movements of the child up to the time of its death. Both Parry and Tait attached great importance to the occurrence of this "show" as a diagnostic sign of great value, and Mr. Tait says that after having almost exhausted the literature of the subject he is satisfied that the occurrence of the "show" is invaluable in the extra-uterine gestation which has reached full term. This patient states that she had none. Operation for removal was delayed two weeks because the placenta was implanted in front, and must be detached before delivery of the child. It was thought desirable to delay until the placental circulation had lost much of its activity.

Before coming here the patient had had rigors and sharp fevers. These occurred daily after she came to me, and she suffered no little from too frequent movement of the bowels, accompanied with pain extending to the left hip and thigh, and with much rectal tenesmus. The bowel disturbance and the tenesmus I ascribed to the attachment of the placenta in part over the sigmoid flexure.

The operation was done November 7. The incision through the median line revealed a tumor with slight adhesions to the abdominal wall. The tumor had a peritoneal covering. On dividing the sac wall the placenta came into view. It was detached with the fingers first to right and then to the left of the median incision, but I would not get beyond its lateral margins so as to reach the fetus. On detaching it

upward in the direction of the navel its margin was reached and the fetus delivered. The child was very large, weighing over ten pounds. As the circulation in the placenta was still active and the bleeding free, I did not disturb it (the placenta) further. The cord was brought outside and cut.

The incision in the sac wall was closed by suture, except about two inches at the lower end. The abdominal wall incision was closed with through-and-through silk-wormgut sutures to the same distance, and several of these were made to include the sac. The opening in the sac was then stitched to the opening in the abdominal wall. A gauze drain was carried through this opening to the bottom of the fruit sac. After operation the symptoms were favorable and convalescence was soon assured.

The drainage arrangements were not disturbed for a week. Then the discharge was offensive. The drains were removed; the sac was washed with peroxide of hydrogen and afterward with warm salt solution. The index finger was used to detach more of the placenta. Here and there strong rootlets from it were felt running into the sac wall. Force was not used to separate them. No attempt was yet made to remove placenta. On 21st of November, two weeks after operation, quite a large portion of placenta was removed by forceps guided by the finger. Previous to this the stitches had all been removed, and the wound healed without suppuration. Every second day the sac was cleansed and fresh gauze drain placed in it. On November 25 another large piece of placenta and a portion of the amnion were removed with little bleeding. Rootlets were still felt in places and I did not tear them. The sac had shrunk much and the placenta came within reach more easily.

The discharge was quite offensive and deodorants were used on the dressings. The patient continued to do well. There was a very moderate rise of temperature in the evenings, but she was steadily improving in strength, had a good appetite and slept well.

On December 3 all the remaining portions of placenta and amnion were removed and after this the discharge was quite free from odor. She improved very rapidly in every way, and was out of bed on December 20. The sac was now very small. It was injected every other day with iodoform and glycerin. Its capacity on January 1 was no more than two drachms. The uterus was now small. Involution seemed complete. The patient was discharged with a small sinus and has continued to do well since.

It may be remarked that this way of dealing with cases of advanced extra-uterine pregnancy up to and beyond nine months, will probably give the best results. Open the sac, deliver the child, and do not disturb the placenta at the time of operation.

This is my fourth case of advanced extra-uterine gestation. In the first case the fetus had been dead six months. The placenta was in front, but was non-vascular and was removed at the time of operation. The sac was stitched to the abdominal wall and drained. The patient died one month later of pulmonary tuberculosis, having cavities in both lungs.

The second and third cases were advanced respectively to three and four months beyond term. I yielded to the surgical tempta-



tion to do the ideal operation of removing the sac and placenta. In one case the patient lived only a few hours, dying of shock. In the other, bronchitis occurred on the sixth day and death on the thirteenth day. She was septic.

111 Court Street.

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## WHY I USE PEPTO-MANGAN "GUDE." AN EXPERIMENTAL DEMONSTRATION.\*

BY WM. KRAUSS, PH.G., M.D.

MEMPHIS.

Director of the Microscopic Laboratories, Memphis Medical College, Pathologist and  
Visiting Physician to St. Joseph's Hospital, etc., etc.

Some five years ago I wrote a paper for the *Memphis Medical Monthly*, giving a résumé of the evolution of the iron compounds, and appended a report of cases giving blood counts, etc. The manufacturers of the preparation I preferred saw fit to reproduce the case reports in their pamphlets, but said nothing about the reasons that induced me to prefer their product.

At a recent joint meeting of physicians and pharmacists I was criticised for opposing the use of readymade compounds, while still advocating the use of Pepto-Mangan "Gude," which is a proprietary preparation. I hesitated considerably about bringing the matter up again, because I dislike to build up a reputation as an endorser, and have never in any other instance written an article endorsing a proprietary preparation.

I hope, however, to show you this evening that there is no pharmacopeial preparation that meets the requirements of an ideal iron compound, and, until this is found, I intend to continue to use what has never disappointed me, and is not based upon mere faith. The work of Bunge is too well known to be now quoted, and I will only make a few experiments before you this evening and show the reasons for the faith that is in me. There may be other proprietary iron compounds, and doubtless there are, that will come up to the same requirements, but I see no advantage in swapping the devil for the witch.

It is not necessary to repeat all the tests with all the official iron preparations, because they are divisible into groups, all the salts of

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\* Read before the Memphis Medical Society.

one group behaving very much alike toward the gastric and intestinal juices.

An ingenious theory recently put forward regarding the action of the mineral salts of iron is, that they decompose the substances in the intestinal tract which precipitate the *food iron* so that it may be absorbed. This is the only rational explanation of the fact that we do occasionally get results from them. On the other hand, it is far more rational to use an iron compound that can be, and is absorbed, for then we are reckoning with known quantities, instead of blundering along, giving more iron at a dose than is contained in the entire body, and incidentally deranging the digestive functions by precipitating the gastric, pancreatic and intestinal juices, and producing constipation by reason of the very astringent nature of some of the iron salts.

Beginning with the organic double salts, of which the scale salts are representatives, we notice upon the addition of this gastric juice, that a precipitate is formed; the double salt is decomposed and ferric salt remains, which is insoluble, both in gastric and intestinal juice.

The tincture of ferric chlorid will precipitate some of the gastric constituents, though most of the iron will remain in solution in the hydrochloric acid; the iron still in solution will not be absorbed, because its non-diffusibility is taken advantage of in the manufacture of *dialised iron*, the acid passing through the animal membrane; when the iron finally reaches the intestine, the alkaline carbonates promptly precipitate it. Ferrous sulfate behaves similarly. In both instances, as you see, the very insoluble ferric oxid is finally formed. If you have ever tried to remove iron stains from your water pitcher, you have some idea how insoluble it is.

The insoluble compounds, like reduced iron, or Vallet's mass, only serve to render inert the arsenic with which they are usually prescribed; if dissolved at all in the stomach, they are re-precipitated in the intestine.

Taking now Gude's preparation, we find it soluble, not only in all these reagents, but also in a mixture of them. Potassium ferrocyanid readily gives the iron reaction, excess of ammonia will separate it, redissolving the manganese, which is then recognized by the color of its sulfid; the alkaline copper solution gives the reaction for pepton, showing that it is what the label says. It mixes

with arsenious acid, forming a perfect solution, thus giving us a most useful hematopoietic agent. The soluble alkaloids are perfectly soluble in it, as is also mercuric chlorid. Being a pepton, it is readily diffusible by osmosis.

The only disturbing agent in the intestinal tract is hydrogen sulfid; this will precipitate it, but presumably, much of the iron must have been absorbed before it encounters this gas; if not, appropriate agents should be used for its elimination.

Therapeutically, it does not nauseate, constipate, discolor the teeth, precipitate the digestive agents, nor become inert from contact with them. As to the clinical results, I need not add anything to the many reports already on record.

210 to 220 Randolph Building.

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## REPORT OF FIVE CASES OF TYPHOID FEVER IN INFANCY AND EARLY CHILDHOOD.

BY EDWARD D. MITCHELL, M.D.

Visiting Physician to the Church Orphans' Home and to the Convent of the  
Good Shepherd, Memphis.

Within the past few years the occurrence of typhoid fever in very young children has attracted the attention of many observers, and their writings have added much to the already large amount of literature upon the subject. The disease formerly taught by many eminent clinicians not to exist at all, or at least, to be extremely infrequent, is now admitted to be of more common occurrence, and within the past few years many new cases have been added to swell the list of those already published. Typhoid in children has been considered of mild type, but it may be quite severe, and its duration extend over a period of several weeks, as will be seen in two of the five cases herewith reported.

The infection of the parents of these children was of a severe type, and probably accounts for the severity of the disease in their children.

The relative absence of typhoid fever in the first year of life is accounted for by Jacobi in *Pediatrics*, December, 1899, by the fact that the water and food are almost always boiled, thus destroying contaminating germs, and at this time of life the child does not roam

about the floor, where older children may pick up infected material. When, however, the bacillus gains admission to the alimentary tract and there elaborates its toxins, evidence of its presence will be manifested. So when a child, no matter of what age, presents the symptoms of bronchial and intestinal catarrh, with continued fever, our suspicions should at once be aroused and a closer examination made. Were this always done, with the improved methods we have at hand, no doubt a larger number of typhoid fever cases would be revealed in very young children.

The literature upon the subject has been so thoroughly reviewed within the past year that it is unnecessary to again quote the opinions of others, and I shall only report the following five cases, for each is a typical manifestation of the disease, and will I think be of sufficient interest to warrant my publishing them.

The treatment adopted was that usually employed in such cases and consisted mainly of liquid diet, tepid baths to reduce temperature, and stimulants when indications demanded their administration.

The first three cases occurred in a family where both parents and two aunts were suffering with the same disease. The last two were sisters but not related to the others, and living in a remote portion of the city where typhoid fever has not existed for several years.

Case I. V. C., age 8 years; female. Began to sicken with fever and malaise on November 17, 1899. Her tongue was coated, the abdomen slightly tympanitic. The spleen could be palpated. There existed slight bronchitis and diarrhea. On the ninth day of the disease rose spots were detected on the abdomen. About the beginning of the third week the temperature ranged nearer the normal, not exceeding 100° in the evenings. This continued two or three days when the cough became aggravated, the temperature again rose to higher degree, and physical examination revealed evidence of catarrhal pneumonia. The diarrhea which had been troublesome now became checked, and the bowels were moved by enemata. The fever continued till the seventh week of illness, when it reached normal and convalescence began. Typical Widal reaction was obtained.

Case II. E. C., age 3½ years; female. Her illness began on October 31, 1899, with malaise, cough, slight bronchitis and fever. The bowels were very loose and continued so throughout the illness. The tongue was coated, spleen palpable. Rose spots made their appearance on the fourth day. About the end of the second week there was evidence of catarrhal pneumonia. At the end of the third week the little one complained greatly of earache, and in a few days time the drum ruptured and the ear began discharging, and has continued so till the present time. The temperature became normal in the eighth week, and with the exception of the slight discharge from the ear, she was soon restored to health. Widal reaction.

Case III. C. C., age 13 months; male. Illness began on December 2, 1899, with fever, bronchial and intestinal catarrh—coated tongue, abdominal tympany, spleen somewhat enlarged, but not palpable. The first week of the disease was characterized by very high fever, reaching  $104\frac{1}{2}^{\circ}$  in the evenings. On the eighteenth day the temperature became normal and recovery was uncomplicated. The Widal reaction was obtained on second examination of the blood.

Case IV. C. S., age 3 years; female. She had felt badly for several days, showing disinclination to eat, and on January 2, 1900, it was noticed by the parents that the child was feverish and had some diarrhea. Examination revealed a coated tongue, bronchitis, enlarged spleen, gurgling in the right illiac fossa. Temperature  $102^{\circ}$ . The fever ran a typical curve, reaching normal on the twenty-fourth day. The diarrhea lasted only a few days when the bowels had to be moved by enemata. Recovery was rapid and uneventful. Widal reaction was obtained.

Case V. E. S., age 5 years. Illness began on December 23, 1899, with malaise and cough, and very offensive stools; abdominal tympany was marked and the spleen palpable. About the beginning of the third week the illness was complicated by small patches of catarrhal pneumonia. Temperature reached normal on the thirtieth day of sickness. Widal reaction given.

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## CHRONIC ABSCESS OF THE LIVER, WITH REPORT OF A CASE.\*

BY M. GOLTMAN, C.M., M.D.

Physician to City Hospital, Surgeon to Shelby County Poor and Insane Asylum,  
and the Leath Orphan Asylum.

MEMPHIS, TENN.

It is not my desire to consider the very extensive subject of tropical abscess of the liver as a whole, but rather to emphasize one or two salient features in the report of the following case.

Mr. M. R., aged 34, white, married and father of two healthy children, came to me in November, 1898, complaining of sleeplessness, cough, pain in the right side, particularly about the shoulder, muco-purulent expectoration, and loss of flesh. The complexion was quite muddy, and the sclerotics were faintly jaundiced. The appetite was poor, digestion bad, and there was marked constipation varied with occasional attacks of diarrhea, the last of which had occurred about two months previously. Has had occasional night sweats followed by chilly sensations.

His personal history is somewhat interesting. About six years ago he had a severe attack of "flux," from which he made a slow recovery. About six months after he received a severe blow in the right side by coming into violent contact with a case of drygoods which toppled from a wagon. This laid him up for several days, and after getting well he had another attack of diarrhea, and has had occasional attacks ever since, together with frequent pain in the right shoulder and hypochondrium.

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\* Read by title before West Tenn. Medical and Surgical Association, December, 1899.

About three years ago he began to cough, expectorate, lose flesh, and have occasional night sweats. He consulted numerous doctors and was finally told that he had consumption and that his only chance lay in going away to Colorado, or some such place. His mother died in childbirth, and his father of some acute lung trouble, probably pneumonia. A younger brother died of consumption.

Physical examination revealed the patient much emaciated, bent to the right side as if to relax tension, and the veins of the abdomen and chest quite prominent. There was distinct enlargement of the right hypochondrium and quickened and labored breathing. The heart was normal, but the sounds weak. The left lung was hyper-resonant in its entirety and the breath sounds free, regular, but somewhat roughened. The right lung showed dullness at the apex, below this, hyper-resonance, and again marked dullness commencing at the lower border of the fourth rib in the nipple line. This dullness extended backward and upward until in the midaxillary line it reached the seventh rib, behind it reached the angle of the scapula, and below it extended three fingers' breadth beyond the ribs. Pressure over this area was exceedingly painful, particularly when applied between the ribs. The breathing was broncho-vesicular and numerous rales were heard. The spleen was enlarged and some ascites present.

The sputum in several examinations did not show either tubercle bacilli or elastic fibers. The urine was scant, high colored, concentrated, without albumen or sugar, but showing a decided pepton reaction. The blood showed a marked polymorphonuclear leukocytosis with considerable anemia. The pulse was 102 and the temperature 99. The diagnosis rested between chronic abscess of the liver, cancer of the liver, phthisis pulmonalis, with perhaps a secondary involvement of the liver, and splenic leukemia. The blood examination excluded definitely the question of leukemia. The patient was about exhausted from the examination and complained bitterly of pain and refused to allow the introduction of an aspirating needle, but promised to return in a day or two for that purpose if I would only relieve his pain for the present, which I did with an opiate mixture. I did not see him again for four weeks, when on being called, I found him suffering extreme pain, and the bulging in the right side had increased to such proportions that it was noticeable without removing his outer garments. The liver could now be distinctly felt below the right margin of the ribs for over a hand's breadth and seemed to feel nodular, but examination was extremely difficult on account of the excruciating pain which it caused. The rapidity of the enlargement was astonishing to me and reminded me of an acute sarcomatosis. He had acquired the opium habit and begged relief, but his wife would not allow me to "probe the liver." Five days later they sent for me again and I took my friend, Dr. Rice, with me to see the case. After some coaxing we were permitted to insert a needle, which, after it penetrated the skin and subcutaneous tissues, met positively no resistance. Pus was found in abundance. Still they would not hear of an operation, and I then suggested a consultation, and Dr. J. M. Maury was asked into the case. The next morning, with the assistance of Drs. Maury and Rice, I resected a portion of two ribs subperiosteally, and finding the liver strongly adherent to the parietal peritoneum, made a small opening which was enlarged with forceps. The sister at the hospital estimated the pus evacuated at two gallons, and I believe it to be a fair estimate. The patient rallied well from the operation, the cough and expectoration ceased, and he gained flesh and strength for ten weeks, when suddenly dysentery set in, and do what I would or could, it was uncontrollable, and he died three days after its onset. This is a favorite termination for these advanced cases, and might possibly be prevented by the institution of appropriate prophylactic irrigation of the bowels.

The interesting points in the case are the history of dysentery six years before the abscess was ever suspected, the probable presence of an abscess all the time which irritated the diaphragm and pleura and set up cough and expectoration and occasional night sweats to the extent of suggesting the presence of phthisis pulmonalis, the very rapid enlargement, the large quantity of pus and the apyrexia.

From the diagnostic point of view, the following are the points I desire to especially call your attention to. The primary attack of dysentery six years before, the injury to the right side six months later, (I have come across almost a similar history as regards injury in another case) the repeated attacks of diarrhea alternating with constipation; and the pain referred to the right shoulder. This latter symptom I have never found absent, having observed it in all cases of my own, as well as in several cases in the hands of others, and lastly the aspiration of pus, and the want of resistance to the passage of the exploring needle. Nothing else but experience can teach one the full appreciation of this almost pathognomonic sign.

From the therapeutic standpoint the following suggest themselves: Never give a prescription for an opiate in this class of cases. They soon learn that it relieves their pain and they resort to it rather than go to the doctor. In suspected cases use the exploring needle early and diligently, under an anesthetic if necessary, and if pus is found evacuate it immediately.

The choice of operation depends upon the site of the pus. If in the right lobe, which is the rule in seventy per cent. of the cases, subperiosteal resection of one or more ribs, and if adhesions are present the immediate evacuation of the abscess, are the indications. If adhesions are not present, the visceral and parietal peritoneum are firmly sutured on each side of the incision and the abscess opened between and drained. When the pus is fetid, irrigate with formalin, otherwise irrigation is not necessary. Some authorities advise curetting the abscess cavity, thorough irrigation and packing with iodoform gauze. The rationale of this method appeals to me, but I cannot speak of it from personal experience. Much bleeding would naturally follow this method. Others advise doing the operation in two stages where adhesions are absent as follows: cut down over the site of the abscess and through the parietal peritoneum; suture the parietal and visceral peritoneum, or place sponges between

them until firm adhesions have formed, which is in about four days, then open and treat the abscess cavity. We prefer the operation done at one sitting. Others again advise trans-pleural drainage in these cases, but we cannot recommend it. Simple aspiration of the abscess is so rarely curative, that it need not be considered.

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## TWO CASES OF HYSTERIA WITH PROMINENT EYE SYMPTOMS.

BY E. C. ELLETT, M.D.

MEMPHIS.

Ophthalmic and Aural Surgeon to the City Hospital, St. Joseph's Hospital, etc.

The ocular manifestations of hysteria are no less protean than those affecting other parts of the body, and like the other symptoms, may simulate serious organic disease. In the eye we see hysterical amblyopia, usually monocular; contraction of the field of vision, varying from day to day; reversal of the color fields, whereby red and green objects are seen further out from the point of fixation than white objects, this fact being pointed out by DeSchweinitz and John K. Mitchell; retinal anesthesia, causing irritable eyes, poor and painful vision; anesthesia of the conjunctiva, a symptom omitted in many books; disturbances of the extra-ocular muscles, causing ptosis, squint, etc. The whole subject has been most carefully reviewed by Dr. Casey Wood in the *American Journal of the Medical Sciences* for January, 1899. I wish here to report two somewhat similar cases, presenting typical pictures.

Case I. Miss —, aged 15, was first examined on January 17, 1898. She is a delicate looking blonde, of the *spirituelle* type. Her complaint was that her eyes pained, the lids drooped at times, letters and lines at which she looked moved and fell to the right. She was also troubled with "after images." A year before that she had been told by a very competent eye surgeon that she was threatened with serious trouble with the optic nerve (patient's statement). I found vision reduced more than half for distance in each eye ( $\frac{1}{4}$ ), and she could read fine print at only one fixed distance from the eyes. The balance and strength of the extra-ocular muscles was normal, and the eye ground also normal. I could not improve the vision by glasses, but under homatropine corrected the refraction by the "shadow test." The error was small, far-sighted astigmatism, and while the glass did not improve her distant vision, the eye pain and asthenopia were relieved. The fields of vision were contracted as follows:



## 174 HYSTERIA WITH PROMINENT EYE SYMPTOMS.

Right eye (for white)	Up,	25°
	Out,	50°
	Down,	35°
	In,	35°
Left eye,	Up,	20°
	Out,	45°
	Down,	45°
	In,	30°

[The normal is up 50°, out 90°, down 65°, in 55°.]

At this examination the color fields were correspondingly contracted. Two months later I found greater contraction of the fields, from 20° to 30° all round in the right eye, and from 10° to 20° in the left, with the color fields at times more extensive than the white, and the green larger than the red, which is the reverse of normal.

Aside from the eyes, this young lady was addicted to having some sort of "fainting spells." Except for the relief of the eye pain the condition, both generally and ocularly, remained the same. I told the family my opinion, and made no further suggestions. The following fall she consulted Dr. H. M. Thomas, of Baltimore. He wrote me asking the result of my examination, concurred in my diagnosis, and said that Dr. Theobald had examined her eyes with the same findings that I reported. She came home, and was under no treatment after this time. In February of this year she consulted me as to the wisdom of laying aside her glasses. Without any apparent cause she had, in the last four months, gained nineteen pounds; her vision and visual fields are normal, and she uses her eyes with comfort. She has had no "spells" recently.

If some Christian Scientist had had this patient under "treatment" at the time she made up her mind to get well, another wonderful recovery from impending blindness, etc., would have been recorded.

Case II. In June, 1897, a little girl, 7 years old, was brought to me for *otitis media purulenta residua*. Aside from this trouble she was apparently well, a strong and healthy looking brunette. In August, 1898, she was again brought to me with a complaint of constant frontal headache, nervousness and irritability. The vision was reduced to one-tenth, due apparently to near-sightedness, which was the only abnormality revealed by the examination. This was carefully corrected under a mydriatic, as is my custom, but the vision was at best only one-half of normal. The frontal headache was relieved, and the nervousness greatly ameliorated. In October, 1899, the vision was again reduced, this time to one-twentieth, unimproved by correcting the near-sightedness. The eye grounds were normal, the conjunctivæ so insensitive that I could rub my finger all over the eyeball without her feeling it, and the visual field contracted to about 20° in the right eye and 30° in the left. The limits of the red and green fields ran in and out, now beyond the white, now the red more contracted, and now the green. The child had become pale, very nervous and irritable. I advised the mother to see her physician, Dr. Posert, with whom I conferred. He agreed in the diagnosis, but so far as I can learn the patient has not yet made much progress toward relief.

The father and a brother of this patient are myopic. The mother is intensely neurotic. As an example, she is beset with a fear that her child is going blind, a fear which repeated assurances from me have not removed, and she is so fearful of this calamity that she goes to the child's bed at night and awakens her to ask her if she can see.

There is but little to add to the recital of these two cases. They are quite typical, which is my main reason for recording them. They illustrate the necessity of one being familiar with normal as well as abnormal conditions, to avoid the error into which my predecessor in Case I is said to have fallen. They also illustrate the usefulness of the shadow test as an objective means of measuring the refraction in eyes whose visual acuity is below normal, and they also show the value of a patient mapping out of the visual field in such cases, the evidence afforded by the fluids being almost decisive in these two cases. Lastly, they illustrate the limitations of therapeutics, and in Case I the *vis medicatrix naturæ*.

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ON THE RESUSCITATION OF APPARENTLY DEAD NEWBORN BY LABORDE'S METHOD.—Fronczak (*Phila. Med. Journal*, Feb. 24, 1900) describes Laborde's method of resuscitation, that of rhythmic traction of the tongue, and reports four cases in which it was successfully practiced in apparently dead newborn infants. He puts the child in a warm bath, clears the nose and throat of mucus, and grasping the tongue, slowly practices drawing it firmly forward and then releasing it. The tongue at first gives no resistance, and after a while resists positively. Soon is noticed very mild respiratory movement, then quiet. In a short time the breathing will be established. One should not be discouraged if this does not occur promptly, but should continue with his efforts. The advantages over Schultze's method are that the child does not run any chance of becoming chilled, the action of the heart can be watched, and the method is not so fatiguing to the operator.

# THE MEMPHIS LANCET.

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## EDITORIALS.

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### THE PASSING OF THE GARGLE, AND THE SELECTION OF ITS SUCCESSOR.\*

In this iconoclastic day and generation many time-honored methods and remedies are being relegated to the realm immortalized by a former President of these United States, and the one next destined to have its sphere of usefulness materially curtailed is the gargle. It is now well recognized that this method of applying remedies to the throat only succeeds in reaching the mouth, anterior surface of the palate, anterior faucial pillars, tongue and tonsils, if not enlarged. For the average case of tonsillitis and pharyngitis it is absolutely inert, though by virtue of being accompanied with some effort on the part of the patient, and a good deal of noise, its mental effect is considerable. It is not the tendency of the day to tear down any of our idols without erecting in their stead what we believe to be more deserving ones. Of the substitutes for the time-honored method may be mentioned that of Von Tröltsch. As described by Newcomb, this method consists in the patient taking some of the solution in the mouth, and leaning the head back, he starts to swallow. When the solution is well within the pharynx, a quick forward toss of the head will throw the solu-

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\* Suggested by an article on "Limitations of a Gargle," by Saxton T. Pope, in the Occidental Medical Times, March 1, 1900.

tion up into the naso-pharynx and posterior nares. Swain has demonstrated that a solution thus used will reach both the epiglottis and arytenoids, as well as the naso- and oro-pharynx. Used in this way, gargling becomes quite a feat of legerdemain. We have seen the method described as follows: have the patient take some of the solution in the mouth, close both nostrils, open the mouth and attempt to swallow. This also throws the solution up behind the palate, and seems to be simpler than the other method. By painting the pharynx with a solution of iodine, and using starch water as a gargle, the ordinary method of gargling will be found not to color the starch water at all, while the method of Von Trötsch will color it blue, showing that it has reached the iodine.

We would prefer, in cases where the naso-pharynx is to be reached, to do so by means of the nasal douche. The solution must be alkaline and warm. It can be either snuffed up from the hand, and then by sniffing coaxed back into the pharynx, or used by some such appliance as a feeding cup, spoon, or Birmingham douche. If the precaution is observed of keeping the mouth open while using the douche, no disagreeable strangling will occur; and if the proper method of blowing the nose is followed, i. e., leaving the side to be blown free from the alternate closing and opening usually practiced, the ears will be safe. This method is to be supplemented by suitable applications made by the physician at such intervals as he sees proper. For tonsillar and oro-pharyngeal inflammations we are convinced that the maximum of effect with a minimum of disturbance is attained by the prescription of such agents as can be easily swallowed. A sip, taken at half-hour intervals, applies itself thoroughly and almost constantly to these parts, and we are impressed with the better and quicker results thus attained. This also may be supplemented by local applications. In severe inflammations, sucking ice applies cold to the parts effectively. In cases of "quinsy," where a sort of internal poultice is desired, the old method of gargling with a *hot* alkaline solution will sometimes abort the trouble, or if too late for this, will hasten its breaking down.

To recapitulate, then: The old method of gargling is suited for conditions affecting the mouth, tongue, anterior surface of the soft palate and anterior faucial pillars. For the naso-pharynx, the method of Von Trötsch, or better, the nasal douche. For the

tonsils and oro-pharynx, the frequent use of small quantities of some mixture that can be swallowed. As we are discussing methods and not remedies, we make no suggestions as to the latter.

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## REPORTS OF SOCIETIES.

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### PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

*Regular Meeting, March 6, 1900.*

The President, Dr. E. C. Ellett, in the Chair.

Present were: Drs. Alfred Moore, Rice, Sale, F. A. Jones, Griswold, Rudisill, Webb, Kane, Ellett, Black and Barton.

*The President presented a patient illustrating the Deleterious Influence of Lead Solutions Used During Ulceration of the Cornea.* The man had used a solution of acetate of lead in the eye whose cornea was ulcerated four months ago, on the advice of some old woman. There was a large white scale-like opacity half as large as the little finger nail in the center of the cornea, and surrounded by a halo of hazy cornea 2 m. m. wide. There was considerable irritation and a constant feeling as if a foreign body were in the eye. All the textbooks speak of this danger and the mistake is rarely made, but the exhibition of a case might serve to show that the danger is real.

*Dr. S. E. Rice* read, for *Dr. R. B. Maury*, a paper on *A Case of Advanced Extra-Uterine Pregnancy; Operation Seven Weeks After Completion of Term.* (See p. 163.)

*Dr. J. L. Barton* asked when is the proper time to operate in extra-uterine pregnancy.

*Dr. E. P. Sale* spoke of a case of coincident extra- and intra-uterine pregnancy in a rachitic dwarf. The abdomen presented two tumors, but the condition was not diagnosed until operation. The two children were removed from the sac and uterus and lived three and four months respectively. The patient died of sepsis. The case occurred about twenty years ago.

*Dr. Alfred Moore* asked what was the mortality in advanced extra-uterine pregnancy.

*Dr. Rice* said that operation should be done as soon as the diagnosis is made. Some operators prefer the vaginal route. Elec-

tricity is now usually regarded as futile ; it may kill the fetus, but does not cause its absorption. As long as the placenta or chorion exist, separation of them may cause hemorrhage.

*Dr. Sale* cautioned care in diagnosis, and mentioned a case diagnosed extra-uterine gestation by several physicians, but the patient refused operation and the symptoms all passed away. He don't think a positive diagnosis can be made before rupture occurs. Thomas has suggested injecting morphin into the sac and thus killing the fetus.

*Dr. Rice* reported a case of *Capillary Bronchitis* in a child 18 months old, following measles. Immediately after the measles there was dyspnea, with coughing up of membrane and pus, and hyperpyrexia ( $105^{\circ}$ – $106^{\circ}$ ). The capillary bronchitis, and then pneumonia, followed. The membrane contained no Loeffler bacilli, and antitoxin (2000 units) had no effect. He regards the case as probably a streptococcus laryngitis, with secondary infection of the lungs. He has seen a good deal of lobar pneumonia following the prevalent epidemic of measles.

*Dr. F. A. Jones* agreed with *Dr. Rice* as to the nature of the infection. He has seen some very severe complications with measles lately, including several cases of tachycardia. One case was mentioned, occurring in a healthy man of 26. After convalescence was established he was suddenly taken with profuse hemorrhage from the bowels, then aphasia, complete paralysis and death. In three cases he has seen diarrhea and abscess of the liver.

*Dr. Sale* thinks measles is a disease to be respected on account of its occasional severity and its complications. He thinks *Dr. Jones'* case might have been one of septic endocarditis.

*Dr. Rice* thinks the hemorrhage from the bowels might have been by transudation, as occurs in malarial hematemesis, etc.

*Dr. Jones* had looked for but had not found any signs of endocarditis. The bowel hemorrhage may have come on as the result of vaso-motor paresis.

*The President* said he had recently seen a number of cases of acute otitis media from measles. It had usually appeared after the child was well enough to be out. In not a few cases the temperature, reaching a maximum of  $101^{\circ}$ – $102^{\circ}$  about 3 p.m., was the only sign of any trouble, i. e., there was no pain. The drum membranes were found to be quite red and bulging. He had that day

seen and operated on two such cases in consultation (with relief from the fever). He wished to emphasize the fact that though no pain existed, still an acute otitis media might be present and keep up the temperature.

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*Regular Meeting, March 20, 1900.*

The President, Dr. E. C. Ellett, in the chair.

Present were: Drs. Raines, Henning, Wolff, Goltman, Hughey, Buford, Barton, A. Moore, Rudisill, Braun, Porter, Raymond, F. A. Jones, W. B. Sanford, Williams, Henning, McKinney, Ellett, Krauss, Rice, Harkness, Turner and M. Moore.

Visitors, Drs. Green, Ball and Fountain.

*Dr. S. E. Rice* read a paper on *The Etiology and Pathology of Common Colds*. He reviewed the pathology of inflammation, the anatomy of the nasal mucosa, and the inflammatory processes as modified by the peculiarities of this membrane. He thinks the presence of secretion indicates necrosis of the epithelium. The cause of the inflammation is an irritant, either applied locally or peripherally. In the latter case he thinks the local irritation is due to the irritant in the blood and to the vaso-motor paralysis produced by these irritants.

*Dr. B. F. Turner* spoke on *The Prophylaxis of Common Colds*. He said that our ideas on prophylaxis vary with our ideas on etiology. Practices vary from the hardening idea, with free exposure of the body, to the other extreme of complete protection. He does not favor the hardening processes as usually practiced, but thinks we can easily fall into the equally bad habit of too much protection in the way of clothing. The whole matter may be said to be the preservation of the physiologic equilibrium of the body.

*Dr. B. G. Henning* discussed *The Treatment of Common Colds*. As a rule treatment is not satisfactory. Many different plans are in vogue. A "cold" is due to exposure to cold and wet, or the inhalation of irritating vapors and substances. The occurrence of epidemics suggests their contagiousness. The coryza of measles is undoubtedly due to a germ, and it is probable that all "colds" are due to some micro-organism. The principal thing in the treatment of a "cold" is to prevent the extension of the inflammation to the accessory sinuses and to the respiratory and digestive tracts. We recognize three stages—a dry stage, a stage of serous exudation

and a stage of muco-purulent inflammation. The first is the most uncomfortable, being characterized by nasal obstruction, pains and sneezing. Confinement to bed is desirable, and very necessary in the very old, the delicate and the very young. In the first stage opium stands at the head of drugs, and is best given as Dover's powder. Purgation by calomel depletes the tissues and relieves the aching. He usually gives ten grains each of Dover's powder and quinin, with two grains of the monobromate of camphor, and a calomel purge. Opium lessens the pain and hastens the later stages of the "cold." The inhalation of steam, with or without the addition of camphor or carbolic acid, is beneficial. Iodin vapor is irritating. He has seen bicarbonate of soda internally recommended, but does not know on what grounds. In the second stage one drop of tincture of aconite, with two of tincture of belladonna every two hours is beneficial. Menthol, one part and boracic acid two parts, as a snuff, "opens the head" and adds to the patient's comfort. Two grains each of monobromate of camphor, acetanilid and bisulphate of quinin every two hours has a good effect. Ipecac stands at the head of drugs in the treatment of acute inflammations of the broncho-pulmonary apparatus. Small doses of the iodides are frequently given in the second and third stages of bronchial catarrh. In these stages of coryza astringent sprays are of service, as well as insufflations of powdered white sugar. Hot foot baths and hot drinks are valuable, the latter being especially stimulating to the circulation if sipped. The Turkish bath is not to be used, as the exposure after it usually makes the patient worse.

*Dr. G. G. Buford* thinks the cause of "colds" is vaso-motor disturbance. There is primary contraction of the vessels, and the pain is caused by the blood being forced into these small vessels. The dilation follows. In the prophylaxis he believes in plenty of fresh air and light clothing and covering. In the treatment he finds violent physical exercise beneficial. The hot bath and thorough protection afterward is effective, as well as Dover's powder and a laxative. The coal-tar products produce vascular relaxation. Confinement to bed is especially valuable in the first stage.

*Dr. Wm. Krauss* asked if a "cold" is due to local irritation, how does exposure, when perspiring, produce it? He thinks the irritation is peripheral. He has succeeded in breaking up a "cold" by a cold bath. He thinks we dress too warm, and should dress



for the room temperature, and put on heavy outer garments when going out. He thinks woollen underclothing unsuitable, but advises heavy shoes.

*Dr. F. S. Raymond* asked how warm should the room be for the confinement of the patient with a cold or other acute inflammation of the respiratory apparatus.

*Dr. Richmond McKinney* does not think remedies can break up a "cold." For the local (nasal) treatment he advises relieve the nasal stenosis with cocain, applying nitrate of silver, ten grains to ounce, and then a 6 per cent. spray of camphor-menthol in alcohol. In addition to this he gives Dover's powder and a laxative.

*The President* would like to know on what grounds quinin is given for "colds." It is not indicated theoretically, and practically he is not convinced of its usefulness. He agrees with what was said of the value of Dover's powder, hot foot baths and hot drinks, and mentioned pilocarpin, controlled by atropin, as a valuable drug in the first stages of a "cold." He does not think enough stress has been put on the part the activity of the skin plays in preventing colds. It is the largest excreting organ in the body, and when the blood, loaded with excrementitious products, is driven from the surface by exposure of the skin to the vaso-constricting influence of chilling the surface when wet, these products cause irritation. Plenty of fresh air, a daily whole or partial cold bath, and light clothing, about cover the prophylaxis of "colds." As to clothing, we can demonstrate by trying to dry the wet hands on a woollen cloth, how little power wool has to absorb moisture. A fabric should be worn next to the skin which will rapidly take up the insensible perspiration and keep the skin dry. Such a fabric is on the market in the shape of linen mesh, which he has worn this winter for the first time, and has not had a "cold," though always subject to them. He finds himself perfectly comfortable in cold weather. [A garment of this material was shown.] He referred to the probable contagiousness of "colds," as shown by the experience of Nansen's party, who were free from them while in the polar regions, but had them on their return to inhabited localities. The treatment of "colds" by permanganate of potash irrigation, on the idea of their infectious origin, was referred to.

*Dr. Rice* don't believe in the use of opium unless there is pain, and thinks the value of Dover's powder depends on the ipecac it

contains. He thinks the linen mesh would radiate too much heat to be comfortable for many people, to whom woollen is better suited. The dry stage of a "cold" is due to the congestion cutting off glandular secretion. Relief comes from epithelial desquamation. The cold bath is a well-known tonic, as is oxygen. The stimulating effect of the latter is sufficient to overcome the effects of exposure, dampness in the "open air" methods of treating certain diseases. An even temperature is of more importance than a high temperature in treating colds.

*Dr. Turner* said that "colds" are due to quick changes, and their occurrence is explained by Rohé on purely physical grounds. Cold air has a low humidity, and when it enters the nose and is warmed, its capacity for moisture is increased, and it draws moisture from the nasal mucosa. This draws the salts of the blood to the surface and leaves them, where they act as irritants. Exercise, or anything which will enhance the functions of the skin, will aid in throwing off a "cold."

*Dr. Henning* thinks southern houses do not lack ventilation. He attaches more importance to an even than to a high temperature, but thinks 68°F. desirable in the room, as this gently excites the function of the skin. He uses quinin only in the first stage of a "cold," and then for its diaphoretic effect. Later it is a disadvantage. Pilocarpin promotes the activity of the skin, but it is too depressing for indiscriminate use. Cold baths are invigorating to him, but do not protect him from taking "cold." He wears the heaviest woollen underclothes, and is always in a sensible perspiration. He thinks the second stage of a cold is that of exudation from the walls of the blood vessels. Opium acts as a diaphoretic and lessens irritation, and for this reason he uses it.

*Dr. Battle Malone* was elected to membership.

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**MENIÈRE'S SYMPTOM-COMPLEX IN LEUKOCYTHEMIA.**—At a meeting of the Royal Medical and Chirurgical Society held on February 27th, *Dr. F. Parkes Weber* read an interesting paper on acute Menière's symptoms in splenomedullary leukocythemia. His paper made special reference to the anatomic changes found in acute leukocythemetic affection of the ear and was supplemented by a report from *Mr. Richard Lake* on the pathologic condition of the internal ear in one case. *Mr. Lake* said that the condition, viz., ossification of the ligamentum spirale, had not been described before.—*Phil. Med. Journal.*

## PROGRESS OF MEDICINE.

A SYMPOSIUM ON CYSTITIS.—Read before the Ramsey County Medical Society (*St. Paul Medical Journal*, February, 1900).

### 1. General remarks, by Haldor Sneve:

While cystitis is generally associated with ammoniacal urine, there are several forms in which it is acid. According to Bryant, cystitis is a common consequence of stone, prostatic disease, stricture or gonorrhea, and is usually chronic or subacute—the more acute symptoms mostly supervening on the chronic. The chronic form is the direct consequence of local irritation by tumor, stone, or obstruction to the outflow, or from paralysis; the acute is caused by operations, gonorrhea and acute prostatitis, and finally from “catching cold.” Ammoniacal fermentation is due to the introduction of bacteria, either from without by instrumentation, or by extension of inflammation of adjacent tissues. The mucous membrane is devoid of glands, and is loosely attached to the muscularis, which contains the lymphatics and which plays an important role in the pathology of interstitial cystitis and in the extension of infective processes to and from the bladder. The mucosa contains no lymphatics and secretes no mucus; it lacks, therefore, all the physiologic elements necessary for absorption; this has been abundantly demonstrated experimentally. Since there is no free oxygen in the bladder, only anerobic bacteria can grow in it. Cystitis may be accompanied by acid urine if caused by microbes which do not decompose urea; among these are the tubercle bacillus, gonococcus, streptococcus pyogenes, and bacterium coli. Summing up, cystitis is a disease caused by microbic infection, and the acidity of the urine is no evidence of the absence of vesical disease.

### 2. Etiology and classification, by G. A. Renz:

A bacterial disease; the infection usually, but not necessarily, from without. Insult to the mucosa furnishes the nutrient base. Among these retention of the urine is perhaps the most frequent, distention favoring absorption, abnormal contractions, foreign bodies, tumors by causing retention, tenesmus, pressure from without, irritants in the urine, drugs, albumin, sugar, exposure to cold when

bacteria are already present, and in the same way venous stasis, trauma by operation, the passage of instruments, and instillation of caustic drugs; but the essential cause is the presence of microbes. Clean instruments may infect if passed through an undisinfected urethra. The urine in the bladder may itself contain pathogenic microbes that are eliminated even months after such infection, as typhoid, etc. Infection may come from adjacent organs, as the rectum, usually by the colon bacillus. The bacteriologic classification of cystitis is that of Senn—bacillus coli, saprophytic bacteria, staphylococcus, streptococcus, streptococcus erysipelatus, diplobacillus, typhoid, gonococcus and tuberculosis infection. Gonococcus infection is usually limited to the trigonum and associated with other pus germs. Primary tuberculosis of the bladder is doubted, as it resists the infection for a long time. Kidney tuberculosis may exist for years without the bacilli infecting the bladder. Adjacent organs are usually involved.

3. Morbid anatomy, symptomatology and diagnosis, by J. L. Rothrock:

By means of the cystoscope we have found that lesions are more common than formerly supposed. Cystitis is divisible into four varieties—desquamative, suppurative, ulcerative, and membranous or exfoliative. The first is evidenced by marked and continuous shedding of the epithelium, with absence of the evidences of inflammation; there are capillary injection and roughness; it occurs in old women and follows slight trauma, but most frequently instrumentation; clinically it is very chronic, resistant to treatment, and predisposes to pyogenic infection. The suppurative form includes all lesions characterized by the infiltration of the mucosa by inflammatory products, with epithelial desquamation and pus formation; in addition to swelling and redness there is a deposit of pus and desquamated epithelia; under this the surface is rough and shows punctate hemorrhages, and in severe cases an ulcerated and granulated surface surrounded by a zone of congestion. This variety is due to pyogenic bacteria, runs an acute course, and if of long duration the mucosa becomes thickened, and may be pushed into the interstices of the hypertrophied muscles, forming diverticulæ, especially if obstruction is present.

Ulcerative cystitis is less common; it may follow catarrh, and is frequently associated with foreign bodies. The ulcers are usually

rounded or irregular, with well-defined border; a chronic form is the linear ulcer. Membranous cystitis is mostly caused by the streptococcus, sometimes by the pneumococcus. The intensity varies, being superficial in mild, the entire bladder becoming speedily gangrenous in severe cases. The lesions produced by the gonococcus and tubercle bacillus are characteristic; the former produces insular suppuration, the latter begins with infiltration of the mucosa with miliary tubercles, which coalesce, caseate and break down, forming an ulcer; the lesion is usually solitary and selects the trigonum. It has a yellowish gray base with little congestion about the border.

The subjective signs are very much the same in all the varieties; there is little general disturbance, occasionally fever, always frequent desire to micturate. The differential diagnosis cannot be made by the examination of the urine (*sic*); only the cystoscope can determine whether the pus comes from the urethra, kidney or bladder. The urine is generally acid, alkaline only when there is residual urine and in cases of long standing. In desquamative, the urine is acid, and as a rule contains no albumin; it contains very many desquamated epithelia and very few leukocytes; it may be turbid from the many epithelia present. In suppurative, it is acid in the acute stage, alkaline only when ammoniacal decomposition of the urea has taken place; blood, pus and desquamated epithelia are present. Mucus is rarely found in the urine from cystitis; the tough, tenacious material frequently found is pus altered by the action of the alkali; in such urines triple phosphates are present as a rule. In ulcerative cystitis the urine is acid and contains occasionally blood, invariably pus and a few desquamated epithelia. In the membranous, shreds of epithelium are found, occasionally blood and pus. The gonococcus and tubercle bacillus are the only bacteria having diagnostic value.

#### 4. Prophylaxis and treatment, by Burnside Foster:

Prophylactic measures: 1, avoid catheterization; retention may be often relieved without a catheter; 2, where this is necessary observe the following rules: *a*, use a metal instrument which can be sterilized by heat; *b*, if another instrument must be used, provide a new one for each patient if possible; *c*, use an aseptic lubricant, one which is soluble in water, as glycerin; *d*, thoroughly cleanse the glans, penis and urethra before using the catheter, and wash out the bladder after instrumentation.

**Treatment:** The cause must, if possible, be removed; rest in bed must be insisted upon, the diet should be liquid or semi-solid, all stimulating food and drink must be forbidden, large amounts of bland fluid and alkaline water should be drunk, fruits are allowed, the bowels are freely opened and kept active, and the internal medication is symptomatic. When the urine is acid, alkalies are indicated; a convenient formula contains 4 minims of liquor potassæ, 15 minims of mucilage, and 45 minims of tincture of hyoscyamus, given every four hours. If the urine is alkaline, antiseptics are indicated, such as salol, boric acid, or sodium benzoate; urotropin is useful, especially in bacteriurea. The local treatment consists of washing out the bladder with antiseptic solutions, which must be done through a catheter if the bladder does not completely empty itself; silver nitrate, corrosive sublimate, salicylic acid and potassium permanganate are the most useful, in the order named. In very acute cases, with great pain, the method of instillation is useful, beginning [with 25 to 50 drops of a 1 per cent. solution, after the bladder has been completely emptied. Rovsin washes out with sterilized water, instills two ounces of 2 per cent. silver, followed in a few minutes with the same amount of water. Drainage may be through the urethra or through an artificial opening, the latter being either suprapubic or perineal; the former has many advantages. For temporary drainage the author prefers the perineal, the patient remaining in bed; if marked prostatic enlargement, the opening should be in the median line, at the apex of the prostate.

Tubercular cystitis does not yield to the ordinary local treatments. Drainage is sometimes useful. Author had one case where the patient was curetted through a perineal opening, some ounces of pultaceous material removed, and the patient much benefited. Constitutional treatment is essential.

He summarizes as follows: 1, rest, especially in acute cases; 2, correction of abnormal conditions of the urine, chemical and bacteriologic; 3, intestinal antiseptics and free catharsis; 4, drainage of the bladder where it cannot be voluntarily emptied by the patient; 5, the direct application to the mucosa of such substances as have been found to destroy germs and diminish inflammation.

**THE NON-OPERATIVE TREATMENT OF STRABISMUS, ITS POSSIBILITIES.**

A. Edw. Davis (*Post Graduate*, March, 1900) draws the following conclusions:

1. Hypermetropia and hypermetropic astigmatism are the causes of convergent strabismus in the great majority of cases.

2. As contributory causes may be mentioned, (a) difference in acuteness of vision, either congenital or acquired, but usually eyes; (b) anything that interferes with the acuteness of vision, as opacities on the cornea, in the vitreous or lens.

3. Faulty structure, insertions or innervations of the extrinsic muscles of the eye may cause convergent strabismus; and paresis of the ciliary muscles has been given by some observers (Javal); also traumatism of the external rectus muscle at birth (Panas).

4. The amblyopia present in most cases of convergent strabismus is functional and acquired, and not congenital except in rare cases. The few examples of positive evidence on this point, that is, where cases have improved greatly in vision when the squinting was straightened, together with cases where the amblyopia has been observed to develop after the strabismus begins, are of much more value than all of the negative evidence in favor of the theory of congenital amblyopia.

5. The non-operative treatment of strabismus, atropin, the exclusion pad, and in patients old enough, glasses, the stereoscope and bar-reading should begin as soon as the squinting is observed; for it is in the early stages that this form of treatment is capable of doing so much good. By means of it, if the case is taken in time, false fixation and suppression of the image in the squinting eye is prevented, fusion of the images in the two eyes encouraged, and form-perception, that is, true binocular single vision, often maintained. Even where one or more of these functions have been lost, persistent effort in the non-operative methods of treatment frequently restores them.

6. That about 25 per cent. of cases of convergent strabismus may be cured by non-operative treatment.

7. Just as soon as the non-operative method of treatment ceases to improve the condition of the squint, it is time to operate. Delay in operating after this is not only useless but harmful, because the habit of suppressing the image in the squinting eye becomes fixed and the amblyopia worse.

8. After the eyes have been operated on, the use of the stereoscope, bar-reading, the pad, glasses, etc., are of the utmost use in completing the cure, maintaining parallelism and establishing single binocular vision.

9. The "rational" treatment of strabismus is, as Priestly Smith says, "early treatment", and in every case the child should be thoroughly examined soon after the strabismus begins. This principle should be urged upon the whole profession, in order that it may reach the public.

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**ETIOLOGY OF HEADACHE.**—Dercum (*Nervous Diseases, by American Authors*, pp. 927, 928) says that headache is a very common nervous symptom. It occurs in varying degrees of intensity as a manifestation of the most diverse morbid states. It arises at all periods of life, but is most common between the ages of puberty and middle life—that is, between the fifteenth and forty-fifth years. Early childhood and advanced life enjoy a comparative exemption, which is to be ascribed partly to the fact that these periods are relatively free from many of the underlying pathologic conditions and partly to the fact that at the extremes of life the cerebral cortex is less active functionally; that is to say, less irritable.

The headaches of childhood are not only much less frequent than those of adult life, but they are also more limited in variety, and as a rule less severe.

The influence of sex is notable. Women suffer more than men in the ratio of three to one.

It would appear that headache is more common in city life than among country folk, among the well to-do than the poor, in the spring and autumn, and in temperate climates. Highly educated persons and those whose time is devoted to letters and learning suffer more than others to an extent which cannot be fully explained by their sedentary habits.

Headache occurs as a symptom more or less prominent under the following conditions, which, taken together, may be regarded as forming the basis of an etiological classification:

1. Traumatism involving the head.

It is to be noted that headache is a constant symptom after recovery of consciousness in cerebral concussion and pressure, but that it occurs infrequently as a direct symptom after surgical oper-



ations affecting the cerebral cortex or after laceration of brain substance if pressure have been removed.

2. Circulatory disturbances, as :

(a) Passive congestion, such as produced by posture, tight clothing about the neck, or the presence of tumors upon the veins of the neck.

(b) Active hyperemia, such as results from excessive or prolonged physical or intellectual strain, or attends the initial stage of acute meningitis, or the action of certain drugs, as alcohol, amyl nitrite, nitro-glycerin. The vessels of the pia are dilated, there is increased tension, and pressure upon related sensitive nerve filaments.

(c) Anemia, either that following loss of blood or the ordinary forms of anemia, and especially chlorosis. To temporary brain anemia is due the headache which occurs in chlorotic subjects upon effort, as ascending a flight of stairs. Local anemia may accompany brain exhaustion from prolonged mental effort, and may be invoked to explain the headache which frequently arises under these circumstances.

3. Inflammation. Headache is a very prominent symptom in meningitis, whether due to local cause, secondary infection, or the primary infection of cerebro-spinal fever.

4. Toxemia. The offending substance or substances in the blood may be the result of

(a) Infection, as in the acute specific fevers and malaria.

(b) Incomplete or perverted physiologico-chemical processes, or defective elimination of waste. This variety of headache occurs in uremia, diabetes, gastro-hepatic derangements, gout, rheumatism and lithemia.

(c) The action of drugs and poisons.

*a* Acute: quinin, opium, narcotics generally, the nitrites, alcohol, ether, carbon dioxide.

*b* Chronic: lead, tobacco, alcohol, opium, chloral.

5. Changes in the arteries. Endarteritis, arterio-sclerosis; hence in syphilis, degenerative nephritis, chronic alcoholism, lead poisoning.

6. Organic diseases of the brain, such as abscess, tumor, aneurism (not miliary), especially when pressure is directly exerted upon the brain-membranes.

7. Caries of the cranial bones.

8. Neuropathic conditions, neurasthenia, hysteria, epilepsy.

9. Reflex irritation; ocular, nasal, pharyngeal, auditory, gastric, and irritation from the reproductive tract.

The etiology of a large proportion of headaches is not simple, but complex, two or more of the foregoing factors often being concerned in its causation.

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**TRAUMATIC TETANUS.**—Robt. Abbe (*Annals of Surgery*, March, 1900), after thoroughly discussing nine cases of traumatic tetanus, concludes with the following remarks:

Considering the foregoing cases, I would note that the common observation that a long period of incubation is an absolute criterion of the probable severity is an error.

In considering these nine cases, I find two only can be regarded as in sense of a milder type, one commencing on the 10th, and one the 19th, the day after injury. The other seven were of a grave type.

Of the seven occurring during the epidemic of the past summer, five were so severe, either at the onset or in the progress of the disease, that they were deemed worthy of being subjected to the test of trephining. Of these five, three recovered and two died.

The cases that recovered had their onset on the seventh, ninth, and nineteenth day of incubation; the cases which died, on the eighth and sixteenth day of incubation.

In two of the trephined cases the Board of Health toxin was used; one died and one recovered. In three cases Parke, Davis & Company's serum was used; two recovered and one died.

There were five of the nine cases in which one could perceive an apparent effect of the serum treatment.

In case No. I, in which it was given only subcutaneously, the Board of Health serum (1898) was used. Though the patient subsequently died, improvement was certainly noticed.

In case No. IV, Board of Health serum (1899) was used by trephine and subcutaneously, and the patient recovered.

In case No. VI, the Parke Davis & Company's serum was used only subcutaneously. Improvement was demonstrated, and the patient recovered.

In cases Nos. VII and VIII, the Parke Davis & Company's serum was used and the favorable effect observed. Both were tre-

phined and the serum used in the brain subcutaneously. Both recovered.

The favorable action was shown either in a prompt arrest of the general convulsion spasm or in an abatement of the progressively bad symptoms.

The serum furnished by Parke Davis & Company was available in the midst of the summer epidemic of tetanus, if we may call it so, at the moment when the Board of Health ceased to furnish more from lack of supply, and it proved itself, both by comparison and in its actual results, noticeably more efficient.

This limited experience leads me to regard it as a valuable adjunct in the scientific treatment of this grave malady, and I can but regard the cerebral injection as an advance over the subcutaneous method worthy of extended trial and further study.

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[According to Roux and Borrel the poison of tetanus is fixed in the nerve tissues and in the brain cells, they having a special affinity for the toxin, and the only satisfactory explanation of the better action of anti-toxin by cerebral injection is based on these facts.

Given subcutaneously the anti-toxin only neutralizes the toxin already in the blood without affecting that in the nerve tissue and brain cells. Given direct into the cerebral tissue, the toxins in this tissue are neutralized directly.

We have had a single personal experience with tetanus anti-toxin (not Parke Davis') given hypodermatically in doses of ten c. c. every four hours for five days without the slightest effect. The case was a well marked and a severe one, dysphagia being especially severe. After this time we began the use of 4 per cent. carbolic acid injections every six hours, thirty c. c. being eventually given for each injection. Marked amelioration in the spasms including the dysphagia and locked jaws took place shortly after the urine showed evidence of carboloria. The acid was continued for several days, and while the urine showed considerable blood microscopically there were no other untoward symptoms. Within three days the spasms had almost completely subsided, the mouth was well opened and with very little difficulty, dysphagia was very slight, and only stiffness of the neck and back remained. Just at this time the patient was taken with a severe chill, pain in the stomach, and

vomiting, high fever, unconsciousness and death within twelve hours. The blood showed typical estivo-autumnal infection.

Carbolic acid hypodermatically has been found of value by many competent veterinarians in the treatment of tetanus, and many cures have been reported in man by Wood and others. It certainly should be tried in these almost hopeless cases, and if amelioration in the symptoms does not quickly follow its use, the *dernier ressort*, the cerebral injection of antitoxin, should be tried.] M. G.

**METHYLENE BLUE IN MALARIA.**—In certain individuals the administration of quinin gives rise to unpleasant symptoms, says J. W. P. Smithwick in the February number of *Merck's Archives*. The untoward results have caused investigators to search for some substitute for quinin. For several years certain physicians have been experimenting with methylene blue, and have found it to possess very decided antimalarial properties. The medicinal preparation is a simple hydrochlorate of tetramethylthionin and is free from arsenic and zinc. It is usually administered in two-grain doses six times a day, in the form of capsules or pills. It will appear in the urine about an hour afterward, making it intensely blue. It acts as a diuretic, which is a valuable consideration where there is a tendency to hematuric complication.

A table of 50 cases of different types of malaria accompanies the article. Of these there were 24 cases of quotidian, 4 of tertian, 3 of quartan, 5 of estivo-autumnal, 3 of hemorrhagic, and one of double quotidian malarial fever. All but 7 recovered; 3 of these refused to take methylene blue after the first day, and the remaining 4 were in a bad physical condition, their deaths resulting from organic disease. The remedy has a twofold effect in the hemorrhagic type of malarial fever—that of a parasiticide and a diuretic. A relapse in one instance responded to the treatment, in this respect differing from the usual results of quinin administered under the same condition. The treatment was continued ten days after the last chill. He concludes that the cases need not be selected on account of idiosyncrasies, as the methylene blue produces no bad effects if administered intelligently; he believes it to be a perfect substitute for quinin. It is of especial value in the malaria occurring during pregnancy, as it has no oxytoxic effect, and increases elimination by the kidneys.—*Journal Amer. Med. Assoc.*

THE SIGNIFICANCE OF EARACHE IN CHILDREN.—T. H. Halstead (*Medical News*, March 17, 1900) concludes as follows:

1. Earache in children is usually caused by acute inflammation of the middle ear, suppurative, or catarrhal.

2. Infants and young children may have suppuration in the middle ear without giving satisfactory evidence of pain, or without rupture of the drum membrane.

3. In the absence of other known cause of pain, from which a child is evidently suffering, the first cause to be thought of should be acute otitis media, and this calls for an examination of the drum membrane.

4. It has been shown by examination of the middle ear during life and post-mortem, that purulent otitis media is nearly always present in acute infectious diseases of the gastro-intestinal and respiratory tracts in young children, especially in gastro-enteritis and broncho-pneumonia, to which disease it probably stands in a causative relation.

5. The cause of death in many acute and chronic infectious diseases, in meningitis and in the exanthemata is the result of unrecognized and untreated abscess of the middle ear.

6. Repeated earaches in children are, ordinarily, but a sign of acute exacerbations of a chronic otitis media resulting from adenoids.

7. In adult life, so called, catarrhal or progressive deafness is often but a final stage of the otitis media, which had its beginning in early childhood, when it was due to adenoids and practically curable.

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THE ORGANIZATION OF ASEPTIC OPERATION—SOME OF THE CAUSES OF FAILURE.—Lockwood, (*British Medical Journal*, Feb. 24, 1900) in speaking of aseptic operations, gives the following method for cleansing the hands of the operator and the skin of the patient: 1, shave when necessary; 2, thorough washing with soap and water, and in case of hands trimming the nails close; 3, with ether, benzine or turpentine remove all the remaining fat and grease; 4, saturate for at least two minutes with a 1-500 solution of biniodid of mercury in methylated spirits. As to suture-material, he prefers silk and silkwormgut in ordinary aseptic cases. Sometimes, as in ligating septic stumps, or in circumcision in children, catgut is preferable. The catgut is prepared by washing with soap and

water, and then soaking in ether until free from grease, and finally it is allowed to stand in a 1-250 watery solution of the biniodid of mercury, at least 72 hours. The biniodid of mercury is of more value than sublimate because it does not coagulate albumin and is less irritating.—*Phila. Med. Jour.*

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SELECTION OF ANESTHETIC IN SURGERY.—John A. Wyeth (*Journal of the American Medical Association*, March 24, 1900) says:

"In the first ten years of my practice I employed ether exclusively. I observed, not only the great irritation which the vapor of ether caused to the respiratory tract, but that in a certain proportion of cases, especially in alcoholic subjects, it was extremely difficult to secure a profound narcosis without inducing a threatening condition of asphyxia. Such annoyance as the churning of mucus into froth, which filled the pharynx and nasal cavities and occasionally drifted into the larynx and threatened the patient with asphyxia, were entirely absent in chloroform narcosis, and to the comfort both to the patient and the operator obtained in this manner, encouraged me to the more frequent employment of this agent. At present, in about 75 per cent. of my operations, I employ chloroform, either wholly or at some stage of the narcosis. In using it I invariably inject beneath the skin 1-4 grain of morphia with 1-150 grain of atropia, about fifteen minutes before the anesthesia is commenced. Their employment is based on what I believe to be a fact, that chloroform is dangerous chiefly to the heart, and that it is in the early stages of its administration that its danger is imminent. Chloroform should be administered with very great care, and one not thoroughly trained in its use should not administer it or permit it to be employed.

"I prefer the Esmarch screen, and administer chloroform very carefully, keeping the finger on the pulse all the time, and watching the pupil to notice any sudden change or dilatation. If the patient gradually gives way to the effect of the anesthetic, and the pulse holds good without any break or interruption of its rhythm, I am satisfied that the chloroform is having no unfavorable effect. The pulse may be rapid, 100 or 120 to the minute; it may be slow enough to register only 50 or 60 in the minute, but these variations are not suggestive of serious danger so long as the heart beats regularly. If it begins to break off and a beat is lost here and there, or if two

or three successive beats fall off in force and fullness and then rise again in volume, it is a signal of alarm which I always respect, and I then remove the screen and wait a few moments to see what the heart will do. If it steadies up with the removal of the anesthetic, I accept the inference that the slight interruption in the heart's rhythm is due to nausea, and continue with the anesthetic. But should there with this condition occur sudden pallor of the face, especially marked about the lips, I remove the chloroform at once and immediately cause the head and chest to be lowered by lifting the patient's lower extremities in the air, or by elevating my operating table in the Trendelenburg posture. If I am satisfied that the heart is showing any resentment to the effect of chloroform, ether is at once substituted, and should the patient continue to do well under ether, the operation may be concluded with this form of narcosis. However, when there has been only a suggestion of trouble from chloroform, and ether has been substituted for a few minutes, if there are kidney or other lesions which contraindicate the use of the latter, I return to chloroform, always, however, with increased precaution in noticing its action on the heart. Another usually alarming symptom of a too profound effect from chloroform is when the pupil is found suddenly and widely dilated, and I always desist from chloroform narcosis when this is observed.

"It is not proper in my opinion to endeavor to bring the patient rapidly under the influence of chloroform. The free admixture of air with the vapor, accustoming the nerve centers and the heart to the presence of this agent in the blood, is essential to safety. When ether is employed I always use it with the Ormsby inhaler, or some form of apparatus which does not permit the passage of the atmosphere over the ether vapor, and thence directly into the respiratory tract. The Allis instrument or any other form of inhaler is extremely objectionable, in my opinion, for the reason that the passage of the atmosphere over the ether vapor lowers the temperature of the inspired air very considerably, and carries this cold vapor into the respiratory tract, often producing severe irritation, and sometimes fatal inflammatory reaction. Moreover, the use of the closed apparatus, which mixes the air with the ether vapor, with which warm air is carried back into the lungs, produces a modified form of asphyxia and makes narcosis possible with a smaller quantity of ether carried into the blood than is possible with the open inhaler,

which permits an unlimited supply of oxygen into the lungs. This modified form of asphyxia is perfectly free from danger, can be controlled with great ease by the anesthetizer, and when it becomes necessary to increase the oxygen in the blood, the simple tilting of the inhaler to one side permits a sufficient quantity of fresh air to pass into the respiratory organs without permitting it to pass over the ether vapor. It is a well known fact that the elimination of ether vapor from the blood through the kidneys is the cause of very considerable irritation of these organs, and the larger the volume of ether in the blood the greater the volume of elimination by the kidneys. It is clear that the small quantity of ether necessary in the use of the closed inhaler in part removes this danger to the kidneys.

"In the hands of a tyro ether is safer than chloroform, and this without regard to the condition of the patient; but in the hands of an experienced operator, one who has studied his case carefully, and satisfies himself that the conditions justify the use of chloroform, this agent is practically without danger. I prefer to use chloroform in all cases where there are pathologic changes in the kidneys, and in which heart lesions are absent. When the lungs are seriously involved, as in tuberculosis, gummatous tumors, or any form of pulmonary inflammation, or in pleuritis in which there does not exist an effusion sufficient to interfere with the heart's action by compression, chloroform is in general preferable. When, however, in any way the heart has been crippled, ether is the safer. In general, in all operations within the abdominal cavity chloroform is preferable, for the reason that vomiting is less apt to occur during, as well as after the operation. As intimated above, however, when there is any heart lesion, even in abdominal surgery it is better to employ ether than threaten this crippled organ with chloroform. I am especially afraid of chloroform in patients who have had repeated attacks of rheumatism. In that class of patients known as "chronic alcoholics", chloroform is preferable, by reason of the difficulties met with in producing profound narcosis with ether.

In children, ether is in general the safer anesthetic, but a child of 10 years, on whom four days earlier an amputation had been done under chloroform without the suggestion of danger, while the wound was being dressed, and while chloroform was again being administered by the same physician, and with the same pre-



cautions, died with heart failure when not more than a dram of the agent had been employed, and before complete narcosis. Two other cases of chloroform anesthesia in children, in the hands of an experienced operator occurred to my knowledge, and if I know personally of three such instances, many others must have occurred. Chloroform is especially dangerous in children who have been weakened by inherited or acquired dyscrasia, or from improper nourishment, and great care should be taken to prevent too rapid administration of this agent, when, as is frequently the case, the little patient begins to struggle and make rapid and deep inspiratory efforts. In children over 12 years of age, well nourished, with no serious lesions of the kidneys or respiratory apparatus, chloroform is, in my opinion, as safe as ether."

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INDICATIONS FOR AND METHOD OF OPERATING UPON THE MIDDLE TURBINATED BONE.—John P. Davidson (*Virginia Med. Semi-Monthly*, March 9, 1900) says that:

"The indications which cause a demand for operative procedures upon the middle turbinated bone may be briefly summarized as follows:

1. For a large and well-defined class of cases suffering from nasal obstruction.
2. To remove an etiologic factor preparatory to, and for the further treatment of naso-pharyngitis, and chronic laryngitis.
3. For the relief obtained in certain cases of chronic catarrhal otitis media.
4. For the beneficial effects procured in cases suffering from reflex nervous symptoms, either accompanied or unaccompanied by asthma or hay fever.

Of the different methods used to remove a portion of the middle turbinate, my preference is decidedly for the cold wire snare. The snare which is the most desirable to me is the old Sajous slightly modified. The change made is a very much larger thumb screw, thereby facilitating turning, and, second, two holes are made in the end to contain the ends of the wire. This very greatly facilitates threading by putting one end of the wire through the hole farthest from the end and screwing it down until this passes within the shaft. when the remaining end of the wire may be passed into the distal opening, after which the excess may be cut with the wire scissors.

The next question is that of the most desirable local anesthetic. Certainly cocain secures for us the most profound anesthesia, but it greatly exsanguinates the soft tissue covering the bone, and, therefore, makes grasping it with the snare far more difficult. The shrinking of the lower turbinate by the action of cocain is, of course, desirable, since it produces a much larger cavity in the region of the lower turbinate, and thereby facilitates the manipulation of the snare. Recently I have discontinued the use of cocain and have been using extract supra-renal capsule and holocain. After having made an application of an aqueous solution of supra-renal extract of the lower turbinate and inferior meatus, we secure as much shrinkage of the mucous membrane as it is possible to obtain from any known agent. After having applied the supra-renal extract, we can effect satisfactory anesthesia of the middle turbinate by the use of holocain, which does not exsanguinate this body as cocain does. While holocain is quicker in its action than cocain, it is less profound in its effect, though my experience with it has been confined to weaker solutions than that of cocain, which we ordinarily employ. Not being as familiar with the constitutional manifestations of holocain as with those of cocain has prompted me to use the weaker solution, and 2 per cent. has been the strongest application I have employed so far. By using the methods of anesthetizing just described, it is possible to remove portions of the offending turbinal, which it is impossible to do with the snare under cocain anesthesia. When the turbinate is enlarged throughout its extent, it is not possible to surround it at one grasp of the snare. Under such circumstances it is most practicable to remove the posterior extremity first, and a second attempt may be made for the anterior portion. It is usually advisable, however, to leave the second portion for a subsequent sitting. Snaring the middle turbinate cannot be regarded as an easy operation, and occasionally we find it impossible to accomplish it. In such cases, the biting forceps, devised by Lester, are invaluable. The wound is not left as smooth as it is from the cold snare, and, furthermore, it is sometimes necessary to make several 'bites' before we remove it sufficiently.

Usually, the hemorrhage ceases in a few minutes, except a slight tinge to the nasal secretions. When the hemorrhage is slightly excessive, it is checked by a small pledget of cotton packed against

the wound. Very rarely it is necessary to plug the nose tightly with iodoform or some antiseptic gauze, which must be removed on the following day, when it may or may not require a second packing. Secondary hemorrhage occasionally occurs, which demands the same management as does the primary bleeding.

The subsequent treatment consists of cleanliness, secured by some antiseptic spraying solution, to be used by the patient. Infection has occasionally occurred, but its origin has practically always been traced to the lack of proper care. I have not seen any unfortunate complication result from infection other than a muco-purulent discharge, accompanied by a certain degree of reaction in the region of the wound. My method of treating this complication is irrigation with a warm antiseptic solution through the opposite nostril. I never remove both bones at the same sitting, but wait for the reaction produced by the first to subside before attacking the second."

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SOME OBSERVATIONS IN THE EAR CLINICS OF LONDON, BERLIN AND PARIS.—Briggs (Correspondence *Occidental Medical Times*, January, 1900) makes the following interesting observation on the subject of mastoid disease:

"I noticed little new in the treatment of diseases of the ear in my visits to the various clinics with the exception of the indications for, and the treatment of mastoid disease. In acute cases the treatment is very much the same by all experienced operators. The difference mainly consists in the thoroughness with which the operator removes the diseased tissue, and continues the investigation to the sinus or brain in cases indicating disease of these parts.

The rules for performing the radical operation in chronic suppuration of the middle ear are not so clearly defined nor have the various operators come to any common understanding as to the indications for it. Luc, of Paris, and many other otologists believe that the radical operation should be done in cases of middle ear suppuration which do not recover after a month's faithful treatment. This rule, however, is far from being universally accepted, and the question still remains open for discussion.

Observing physicians can no longer doubt that chronic suppuration in the middle ear is a constant menace to the life of the patient. The great importance of this subject has not been long

understood by specialists, and many practitioners still consider ear discharges of little significance. The family physician occasionally discovers the connection between a chronic ear discharge and brain disease when it is perhaps too late to save the patient by an operation. Every physician of experience will remember such cases. The most progressive men of today advocate operating upon all chronic suppurations of the middle ear before such unfortunate extension can take place.

Jansen, of Berlin, does not lay down any specific time limit when the radical operation should be undertaken, but bases his decision upon the conditions found in the ear and neighboring tissues. He has undoubtedly had more experience during the past ten years with this class of cases than any other operator. Dr. Jansen, being a modest man, does not state how many mastoid operations he has done, but those in a position to know informed me that he had performed more than three thousand during the past ten years. I have seen him do three in a single day, and my observation leads me to conclude that he does this operation with as great a degree of perfection as it is possible to attain.

Jansen has, I believe, abandoned the Stacke operation altogether. He begins by making the incision close to the ear, and then clearing the bone of periosteum from the meatus well back on the mastoid. The chiseling is begun just below the linea temporalis, using broad chisels at first and changing to narrower ones as he goes deeper into the bone. The bone and cells are carefully removed till the antrum is reached. All disease tissues are removed, using care not to injure the sinus or other important parts. The posterior wall of the bony meatus is then taken away uniting the antrum, the attic and the middle ear cavities. The remaining parts of the drum membrane and ossicles and any granulation tissue in these cavities is also carefully removed. The lining membrane of any cholesteatoma-producing cavity is thoroughly removed. This is best accomplished with a small burr driven by an electric motor. This instrument is also used to smooth off any uneven places in the bone cavity. After the bleeding is checked the Thiersch skin grafts taken from the previously prepared arm or leg are placed in the cavity and covered with a small piece of guttapercha tissue over which is a piece of lint lightly spread with simple ointment held in place with small pieces of plain gauze.

The skin and cartilage of the meatus is now divided by two incisions so as to allow the flap to be moved back into the cavity. The incisions are extended internally to enlarge the meatus and facilitate future care of the wound cavity. The flap of the meatus is now packed against the posterior wall of the bony cavity on that portion unoccupied by the Thiersch grafts, and the external wound closed by sutures.

Perfect asepsis is maintained throughout all steps of the operation. Iodoform gauze is used to pack the wound cavity with the exception of the plain gauze that holds the skin grafts in place. In certain cases the extent and condition of the wound will not permit of immediate closure of the external opening. In such cases a secondary operation is done when the wound cavity has become covered with healthy epithelium. The use of Thiersch skin grafts is a decided advance over the method in general use of allowing the wound to heal by granulation. I have seen a number of cases which healed within two weeks. When the wound is left to granulate months are often required before the process of healing is complete.

The only operation I saw performed in London for the cure of chronic suppuration was that of Stacke. Luc, of Paris, also prefers that method. My own conviction, however, is in favor of the operations with skin grafts as performed by Jansen. The diseased tissue is much more thoroughly destroyed and the likelihood of future trouble is, I believe, much less than after the Stacke operation.

Since my visit to the European clinics seven years ago the radical operation has been established on a solid foundation, and the frequency with which it is at present performed attests to the fact that it is comparatively free from danger and that the patient's safety and comfort is greatly promoted thereby. There are many men who protest that mastoid operations are done too often by certain surgeons. It is no doubt true that some cases are operated upon that would either recover or that would continue indefinitely without serious results. But I think the time will soon come when it will be considered quite as unjustifiable to allow an ear to suppurate indefinitely as it is, at present, to permit a case of chronic appendicitis with probable suppuration, to go on without surgical treatment."

WHAT PRECAUTIONS SHALL WE TAKE TO AVOID LEAVING FOREIGN BODIES IN THE ABDOMEN AFTER OPERATIONS?—Howard Kelly (*N. Y. Med. Jour.*, March 24, 1900) relates the history of five cases observed in his own practice, where sponges, and once an artery forceps were left in the abdominal cavity after an operation, and concluding that the danger is a real one in the hands of the most experienced, formulates the following rules for avoiding such an accident:

1. In the first place, always commence with a definite number of pieces. I begin my operations, for example, with seven marine sponges and nine pieces of gauze, an ample provision for the average case.

2. Write down upon a slate or a piece of paper the number of sponges and pieces of gauze in use.

3. If more are added it is the duty of the assistant to instruct the nurse to write them down at once and to receive from her a statement as to how many she has recorded.

4. I would, with Boldt, urge the entire abandonment of small pieces of gauze and small sponges.

5. Avoid packing of gauze up in the abdomen out of sight.

6. The use of a bit of tape, as recommended by Boldt, attached to the corner of the gauze and left hanging out of the wound with a forceps clasped on the end makes a safe tracer, although, this too, has failed as an absolute safeguard.

7. If marine sponges are used, they may be inclosed in a loose gauze bag, with a tracer similarly attached; sponges held in long forceps do not need a tracer.

8. The operator should put the simple questions, at the close of the operation: how many pieces of gauze are called for, and how many sponges are called for? These questions should be answered without circumlocution or explanation by the simple, direct statement of the numbers wanted. In order to keep my assistants on the alert, and as a means of training them to be extremely careful, I occasionally hold back a sponge or a piece of gauze, and do not give it up until they insist that it is wanted.

9. Never under any circumstances should the count be muddled by cutting the gauze or dividing a sponge.

10. It is my practice to make two people responsible for the number of pieces used, as well as for their production at the end of the operation; these are the assistant who handles the sponges,

and the nurse. In some clinics, where fewer assistants are used, it will be necessary to place all the responsibility on one head, either nurse or first assistant.

11. The discarded gauze or sponges must always be thrown into a receptacle, and never, under any circumstances, mixed with soiled dressings, towels, or sheets, or, worst of all, carried out of the room during the progress of the operation. I have had made, for the purpose of facilitating the counting of these articles, a simple wire frame. The discarded gauze pads are thrown over the horizontal bars, and the sponges are spiked on the sharp pins. In this way soiled articles collected in a definite place can be counted without handling them.

12. In addition to all the precautions noted, the surgeon must exercise his vigilance in taking an exact note of everything that is put in the abdomen, and it may be of service to memory to state aloud, "one sponge introduced into the abdomen," "two pieces are now in the abdomen," etc.

13. An examination should be made in all cases to see by actual inspection and by touch that nothing has been left behind. Such an examination will not, of course, be pushed to an extreme unless there is a missing article to be discovered.

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EXPERIMENTAL RESEARCHES ON THE EFFECTS OF DIFFERENT ANESTHETICS ON THE KIDNEYS.—Kemp has contributed an exhaustive research upon this subject to the *N. Y. Medical Journal* of November and December, 1899. In concluding his report he says:

1. Examine the urine carefully and measure same for twenty-four or forty-eight hours before operation; the urea, indican and chlorides should be noted.

2. Catheterize the patient immediately before the anesthetic is started. This eliminates residual urine from any cause whatever. He believes the nervous element may prevent the complete voiding of the urine. Examine this specimen.

3. Catheterize the patient immediately at the close of the anesthesia, noting time and nature of operation, quantity of anesthetic, nature and method of administration, and how borne by patient; measure the urine, and you have the absolute results of the anesthesia. Test urine for specific gravity and quantity secreted, also for albumin, sugar, casts, etc., and also for indican, chlorides, urea, etc.

Specific gravity and quantity have been noted at Johns Hopkins Hospital.

The following interesting fact was noted: Indican was increased very markedly by ether, and also was produced markedly if absent before anesthesia; and if present in a small quantity this was considerably increased. The same result was produced by chloroform, but was less in quantity than with ether. With nitrous oxide indican was produced or increased, but also less than with ether.

Kemp was able to make these tests on twelve cases of ether narcosis, three of chloroform and two of nitrous oxide and oxygen. The comparative effect between chloroform and nitrous oxide was difficult to judge of on account of the few cases, though nitrous oxide seemed to produce a trifle less than the chloroform. As regards albumin, following the method of catheterism as above described in twelve cases of ether, he found a trace of albumin in three instances where there was none previous to operation, and in one case a slight increase where it previously existed; no renal complications, however, followed, so far as he could learn. With chloroform (three cases) he found no change. In two cases of nitrous oxide there was no change in the urine after operation; in one case there was no albumin previous to it.

In the other case of nitrous oxide and oxygen there was a trace of albumin before operation and a few casts. After operation the albumin disappeared, the number of casts diminished and the patient passed seventy-five ounces of urine in the first twenty-four hours after operation, against fifty-two ounces twenty-four hours before. There was a special reason for this, namely, the slight changes in the urine. A hypodermoclysis of normal saline solution, six ounces, was given just before the anesthetic was removed. This procedure in such conditions seems of value, as it is simple but efficacious. An enema is apt to be voided or objected to by the patient. A convenient place is the lumbar region, between the crest of the ilium (posteriorly) and lower border of the ribs, gentle massage being employed. The patient had no renal complications. This method is to be employed when the question of renal (subsequent) complications might occur.

As Dawbarn does with "infusion to prevent shock" so should we with "hypodermoclysis" to minimize so far as possible the danger of renal complications due to the anesthetic in those cases



where disease of the kidneys already exists or is suspected. This rule should be applied to any anesthetic. The employment of that anesthetic least deleterious to the kidneys, with the addition of hypodermoclysis at the close of the operation, would seem a logical course to pursue.—*The Therapeutic Gazette*, March 11, 1900.

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USE AND ABUSE OF POULTICES.—Owing to the lack of proper instructions to the patient in the use of poultices, says S. E. Earp in the *N. Y. Medical Journal*, February 2, much harm is often done. The majority of people are quite ignorant as to the purposes for which poultices are applied. He gives the following eight conditions under which they should be employed :

1. To relieve congestion.
2. To reduce inflammation.
3. To promote absorption, favor resolution, or hasten suppuration.
4. To diminish tension.
5. To soften incrustations.
6. To encourage tissue relaxation.
7. To stimulate healthy granulations.
8. To perform the office of a deodorant, and in a sense as an antiseptic.

Used improperly they may produce an anemia, flabby condition of the part, and consequently a lowering of the vitality, and possibly a necrosis of the tissues. A poultice applied after the evacuation of the pus is often a detriment.

The material, except that it should be usually unirritating, matters very little—the only consideration being its heat-retaining capacity. In pneumonia, peritonitis and other deep-seated inflammations the poultice should be large, to cover a surface equal to the organs, and reapplied often to get the effect of the heat. It should be covered with sheet rubber, oiled silk or oiled newspaper, and should not remain in contact when cold.

The poultice may be used as a medium where the therapeutic effects of certain absorbable disinfectants, counterirritant or anodyne remedies are required.

The charcoal poultice is used as a deodorant in foul ulcers or where there is gangrene, but it must be frequently replaced, as its

rapid absorption of gases soon renders it useless. When used, a layer of powdered charcoal should be sprinkled on the surface.

Linseed meal, which is popular because of its oleaginous nature, is prepared by adding two parts of meal in small quantities to five parts of boiling water.

Bread poultice may be prevented from drying quickly by adding marshmallow, glycerin or vaselin.

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**SUPRARENAL THERAPY.**—Bates (*The Medical News*, March 24, 1900) draws the following conclusions:

1. The aqueous extract of the suprarenal capsule when used locally is the most powerful astringent and hemostatic known.
2. By reason of its action on the heart, congestion of the mucous membrane and other tissues of the eye are relieved to a less degree by the internal administration.
3. Congestion of other organs in addition to the eye are relieved by the local and internal use of the extract.
4. The extract is useful in all forms of inflammation, and in inflammation in all parts of the body.
5. The suprarenal is the strongest known stimulant of the heart.

Finally, we may say that the reason why so little disturbance has followed the use of this powerful substitute for six years by so many observers, that we are using a material which is necessary to the normal function of the body, and I wish to repeat that within the limits of its sphere of activity no other substance can take its place.

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**CAN THE STATE SUPPRESS GENITO-URINARY DISEASES?**—Valentine (*Jour. A. M. A.*, March 3) says that the control of public prostitution, even if ideally carried out, can be but a small factor in the prevention of genito-urinary diseases, giving statistics showing where such laws had been almost ideally carried out. If a woman were examined and found uninfected on a Monday and has relation with an infected man on that day, she has had opportunities for infecting men for three days before she is re-examined on Thursday, and even then might succeed in getting another certificate to last until the following Monday. In addition there are generally more women who escape the vigilance of the police than come up for examination.

The only effectual method of such public safeguarding would be to make a microscopic examination after each coitus; the medical profession has no member so degraded as to spend his life at such work. Physiologically and psychologically, extra-matrimonial intercourse is not preventable, and physicians know that men who have suffered, even most intensely, from genito-urinary disease, expose themselves to a new infection, even long before they are cured. A case is cited where a man of high sensibilities and well educated had the misfortune from ignorance to infect his father with gonorrheal ophthalmia by using the bathtub before him. If he had known and understood the highly contagious character of the virus, this might have been prevented.

The inferences to be drawn from the paper are:

1. Sufficient of the physiology and pathology of the genito-urinary apparatus should be taught, in institutions for higher education, to convey to students the dangers of genito-urinary diseases to themselves and to others.

2. Similar instructions should be given in schools attended by boys at the age of puberty.

3. No man who has ever had gonorrhea should be allowed to marry until it is proved by a physician that he cannot infect his wife.

4. Regular physicians should be elected, by their associates, to deliver evening lectures to the public on genito-urinary diseases.

5. Every father should be taught to warn his sons of the dangers of genito-urinary diseases. When from incompetency or delicacy the father cannot see or does not wish to do this, the family physician should discharge this duty.

6. Every medical society should elect its most competent member to write at least one article on the subject for laymen's comprehension, to be published under the auspices of the society.

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**HOME AND ASYLUM TREATMENT OF INEBRIETY.**—T. D. Crothers, (*Virginia Medical Semi-Monthly*, March 9, 1900) makes prominent the following facts:

- “1. The treatment of inebriety extends back twenty centuries, and more, and the recognition as a disease is still more ancient.

2. Its prominence, and the increasing urgency for relief from medical men, demand a new study of the whole subject along a scientific line.

3. The inebriate is literally poisoned, and starved, and degenerate, and there is no mystery about his condition or the results of treatment.

4. The possibility of restoration and cure is established beyond question.

5. Gold and other specific cures are only the application of common remedies, which every physician could use with greater skill and success.

6. Every case can be restored, and many of them permanently cured, by the intelligent co-operation of the family and asylum physician. Both home and asylum treatment are invaluable.

7. The public treatment of pauper inebriates and the incurable classes will be carried on in workhouse hospitals, specially organized for this class. The treatment of those able to pay will be in special private hospitals, where the best means of science can be combined to meet the wants of each case.

8. The successful cure and prevention of inebriety is largely an unoccupied medical field, the solution of which opens up a new realm of practice, promising the greatest possibilities, which, in the near future, will be occupied."

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SHOCK, AND ITS SURGICAL SIGNIFICANCE.—Rishmiller (*N. Y. Med. Jour.*, March 17, 1900) draws the following conclusions:

1. Sensory-nerve irritation, sufficiently powerful to produce exhaustion of the vaso-motor center, causes a reflex paralysis and consequently a dilatation of the vascular mechanism.

2. Children, and aged people with lax fibers, and those addicted to alcohol, bear a peculiar susceptibility to shock.

3. Hemorrhage is the most pronounced cause, particularly if venous, as then the equilibrium of the vaso-motor mechanism is too suddenly deranged.

4. Two distinct types are recognized: prostration with indifference and prostration with excitement.

5. Peritoneal absorption of septic material invariably terminates fatally through shock before evident manifestations of peritonitis have developed.

6. A sub-normal temperature, irregular pulse, superficial respiration, cold and anemic extremities and clammy perspiration contra-indicate an operation.

7. The severity of operation shock largely depends upon the length of time in the performance of the operation, and the duration and degree of the anesthesia.

8. Shock may to a large degree be prevented by any counter-irritation applied to the extremities.

9. Brandy per os, and morphin subcutaneously before operating, are imperative precautions toward prophylaxis.

10. The main treatment consists in stimulating the vascular system and to preserve the animal heat and supply artificial heat to the body.

11. In acute hemorrhage, or other excessive anemia, an infusion of normal saline solution is prudently indicated.

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A HOROLOGICAL NOMENCLATURE OF ANAL FISTULÆ.—We have always objected to classifying versions of the uterus as of the first degree, of the second degree, etc., but we must admit the ingenuity of a scheme hit upon by the surgeons of St. Mark's Hospital, London, for designating the situation of the external opening of an anal fistula, as described by a correspondent of the *Presse Medicale* in a communication published in that journal for January 24th. The numerals that stand for the twelve hours are imagined to be arranged around the anus after the pattern of a dial, xii being situated in the perineal raphe, vi at the tip of the coccyx, and so on. By this plan a fistulous opening, lying a little to the right of the median line, and in front of the anus is tersely termed an 11 o'clock fistula; a 1 o'clock fistula opens at a corresponding point on the left side, and other hour-marks do duty in like manner. It must save a good deal of talk.—*N. Y. Medical Journal*, March 17, 1900.

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THE LOUISIANA STATE BOARD OF HEALTH, in conjunction with the Louisiana State Board of Medical Examiners, is arranging for a second registration of physicians in Louisiana. The purpose of this registration is to obtain entirely definite information, and to clear up certain ambiguities occasioned in the construction of the first enacted law.

## BOOK REVIEWS.

Any medical book can be obtained through the Lancet at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

**Diseases of the Nose and Throat.** By J. Price-Brown, M.B., L.R.C.P.E., Member of the College of Physicians and Surgeons of Ontario; Laryngologist to the Toronto Western Hospital; Laryngologist to the Protestant Orphans' Home; Fellow of the American Laryngological, Rhinological and Otological Society; Member of the British Medical Association, the Pan-American Medical Congress, the Canadian Medical Association, the Ontario Medical Association, etc., etc. Illustrated with 159 engravings, including 6 full-page color plates and 9 color cuts in the text, many of them original;  $6\frac{1}{2} \times 9\frac{1}{2}$  inches; pages xvi-470. Price, extra cloth, \$3.50 net. The F. A. Davis Co., Publishers, 1914-16 Cherry street, Philadelphia.

This book is written especially for beginners in the subject, and for those who do not practice rhinology as a specialty, but are compelled to do some work in that line for geographic reasons. The style of the work keeps this purpose in mind, and is always brief, terse, and extremely clear. Theories are given but little room, the whole trend of the contents being practical. There is no room for literary references, and they would be out of place in this sort of a book. As commendable features, we note the use of the metric system throughout, and hope this will be a feature of all our books in a short time. A consideration of diphtheria is omitted, and this, we think, is to be commended, since nose and throat specialists do not treat diphtheria as a rule in many localities, and the subject is dealt with in textbooks of medicine. The cuts are well selected, those of instruments being profuse, but with the exception of some admirable colored plates of frozen sections of the head, the illustrations are very poorly executed. The adenoid pictures are those of Schadle, and are very instructive; we have long considered them the most information-giving with which we are acquainted. We are surprised to note the use of the accusative "aquam" habitually in the prescriptions, and would also refer to some important omissions from the subject of deflected septum, notably the Asch operation. On the whole the book is a worthy product of its conscientious author, and, bearing in mind its purpose, is to be highly recommended.

**A Pocket Medical Dictionary.** Giving the Pronunciation and Definition of the Principal Words used in Medicine and the Collateral Sciences, including very complete Tables of Clinical Eponymic Terms of the Arteries, Muscles, Nerves, Bacteria, Bacilli, Micrococci, Spirilla, and Thermometric Scales, and a Dose List of Drugs and their Preparations in both the English and Metric Systems of Weights and Measures. By Geo. M. Gould, A.M., M.D., Author of The Illustrated Medical Dictionary, The Student's Medical Dictionary; Editor of the Philadelphia Medical Journal; President, 1893-1894, of the American Academy of Medicine. Fourth edition, revised and enlarged; 30,000 words. P. Blakiston's Son & Company, Philadelphia, 1900. Price, \$1.

We have had occasion to call attention several times to the utility of small books, and to none do our good opinions apply more than to the dictionaries. We can conceive of no more useful book to keep on one's desk, when its size permits, and this is true of this volume. The numerous tables it contains are especially valuable. Dr. Gould is probably the foremost medical philologist of the day, and while the scope of this work is not so great as that of his more pretentious dictionaries, it gives the correct spelling, pronunciation and definition of 30,000 medical terms. The low price, attractive press work and flexible leather covers are all advantages, and we certainly commend the book as a most useful and handy companion.

## BOOKS AND PAMPHLETS RECEIVED.

*A Pocket Dictionary*, giving the Pronunciation and Definition of the Principal Words Used in Medicine and the Collateral Sciences, including very complete tables of clinical eponymic terms of the arteries, muscles, nerves, bacteria, bacilli, micrococci, spirilla, and thermometric scales and a dose list of drugs and their preparations, in both the English and metric systems of weights and measures. By George M. Gould, A.M., M.D., author of "The Illustrated Medical Dictionary," "The Student's Medical Dictionary," editor of the *Philadelphia Medical Journal*, President 1893-94 American Academy of Medicine. Fourth edition, revised and enlarged. 30,000 words. P. Blakiston's Son & Co., Philadelphia, 1900.

*Diseases of the Nose and Throat.* By J. Price-Brown, M.B., L.R.C.P.E., Member of the College of Physicians and Surgeons, Ontario; Laryngologist to the Toronto Western Hospital; Laryngologist to the Protestant Orphans' Home; Fellow of the Laryngological, Rhinological and Otological Society; Member of the British Medical Association, the Pan-American Medical Congress, the Canadian Medical Association, the Ontario Medical Association, etc. Illustrated with 158 engravings, including 6 full-page color plates and 9 color cuts in the text, many of them original. 6½ x 9½ ins. Pages xvi-470. Extra cloth, \$3.50 net. The F. A. Davis Co., Publishers, 1914-16 Cherry street, Philadelphia.

*The International Textbook of Surgery, by American and British Authors.* Edited by J. Collins Warren, M.D., LL.D., and A. Pearce Gould, M.S., F.R.C.S. Vol. II, Regional Surgery. With 471 illustrations in the text, and eight full page plates in colors. W. B. Saunders, Philadelphia. Price, cloth \$5, half morocco \$6. In two volumes.

*Surgical Pathology and Therapeutics.* By Jno. Collins Warren, M.D., LL.D. Illustrated. Second edition with appendix containing an enumeration of the scientific aids to surgical diagnosis, together with a series of sections on Regional Bacteriology. W. B. Saunders, Philadelphia. 1900. Cloth \$5, half morocco \$6.

*The Diagnosis of Nervous Syphilis.* By Chas. W. Burr, M.D., Philadelphia. (Reprinted from the *University Medical Magazine*, July, 1899.)

*A Case of Cerebral Hemorrhagic Pachymeningitis with Pseudo-Bulbar Palsy.* By Chas. W. Burr, M.D., and D. J. McCarty, M.D. (Reprinted from *Journal of Nervous and Mental Diseases*, Oct., 1899.)

*Sterility and Pelvic Deformity.* By Joseph Brown Cooks, M.D., New York, N. Y. (Reprinted from the *Medical and Surgical Monitor*, February, 1900.)

*Some Casual Remarks on Prostitution and Venereal Diseases in Their Relation to the Public.* By Isadore Dyer, of New Orleans. (Reprinted from the *Philadelphia Medical Journal*, Feb. 10, 1900.)

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## NEWS AND NOTES.

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DR. J. W. McDONALD, of Jackson, Tenn., died of pneumonia on March 16th.

DR. CHAS. MCBURNEY has resigned from the staff of Roosevelt Hospital, New York.

DR. G. G. BUFORD is arranging for a very pleasant excursion party to the Paris Exposition.

DR. HUNTER MAGUIRE, of Richmond, Va., has suffered a paralytic stroke, and his recovery is doubtful.

THE newest disease of which we are advised affects those who ride in horseless carriages. It is termed "auto-mobilousness."

EXAMINATIONS will be held during April to elect four resident physicians for the City Hospital, and one for St. Joseph's Hospital.

WE desire to again acknowledge our indebtedness to the *Philadelphia Medical Journal* for many notes concerning events of interest to our profession.

DR. JAY F. SCHAMBERG has been elected Professor of Diseases of the Skin in the Philadelphia Polyclinic to succeed Dr. J. Abbott Cantrell, who has resigned.

THE second annual meeting of the American Proctological Society will be held May 2 and 3, 1900, at Washington, D. C., President Dr. Jos. M. Mathews, of Louisville.

THE resignation of Miss Thomsen as head nurse at the City Hospital is a source of much regret to the members of the staff, especially since the cause is ill health.

THE MISSISSIPPI STATE MEDICAL ASSOCIATION will hold its next annual meeting in Meridian, on April 18, 19 and 20. Dr. R. E. Jones, President: Dr. J. R. Tackett, Secretary.

DR. M. B. HERMAN has been so unfortunate as to suffer an infected wound of the thumb, inflicted while operating. He has been incapacitated from work for two or three weeks.



DR. MARCUS HAASE, the efficient secretary of the Memphis Board of Health, has been tendered an appointment in the Marine Hospital Service. He will be stationed at port of Cortez, Spanish Honduras.

No essay having been submitted for the Samuel D. Gross prize of the Philadelphia Academy of Surgery which the trustees deemed worthy of the prize, amounting to \$1000, they announce that the award will not be made until October 1, 1901.

DR. S. S. TERRILL of this city was married in February to Mrs. Decie Burge at Sardis, Miss. The wedding was a surprise to the doctor's associates, but they recovered sufficiently to extend their congratulations, in which the LANCET sincerely joins.

WE take pleasure in announcing the marriage of Dr. Thomas J. Crofford, of this city, to Miss Ellie Barr, of Gallatin, Tenn. The wedding occurred on March 5th, at Gallatin, and Dr. and Mrs. Crofford are now "at home" at the Peabody Hotel, this city.

THE MISSISSIPPI STATE LEGISLATURE passed a bill imposing the following annual graduated tax upon physicians practicing in that State: Physicians practicing in towns of 3000 or more inhabitants, \$10; in towns of less than 3000, \$5; in country districts, \$2.50.

W. GRANVILLE SMITH, the artist who painted the picture of "The Country Doctor" now owned by the Arlington Chemical Co., is preparing a special art reproduction of the picture, in colors. The edition will be limited to 250 signed copies. The work is to be done by Goupil & Co., of Paris.

WE quote the following from the *Philadelphia Medical Journal*:

"WELL DONE! The quack medical men try hard to get their advertisements in the *Farm Journal*. Last month we were obliged to turn down a thousand dollar order. That new press shall not be smirched in that way.—*The Farm Journal*."

OWING TO THE RESIGNATION OF DR. JOHN ASHHURST, JR., the John Rhea Barton Professorship of Surgery in the Department of Medicine of the University of Pennsylvania will be vacant August 31, 1900. Individuals desiring to be considered as candidates for the impending vacancy may send notice of such desire to the Rev. Jesse Y. Burk, Secretary of the Board of Trustees, University of Pennsylvania, 400 Chestnut St., Philadelphia, April 7, 1900.

WE have received the first copy of the *French Index Medicus*, (Bibliographia Medica), edited by Marcel Baudoin. If the succeeding numbers equal the first, the profession is again in possession of this valuable work. The subscription is fifty francs (\$10.00) a year. Address 93 Boulevard Ste. Germain, Paris. The *Index* appears monthly.

A SPECIAL COURSE IN OPHTHALMOLOGY for medical practitioners will be held in St. Louis, beginning April 16, 1900, and continuing six weeks. It will consist of didactic lectures, recitations, clinical lectures, and laboratory work. The instruction will be given by Dr. Jas. Moores Ball, assisted by Dr. E. C. Renaud, and a corps of special lecturers.

THE West Tennessee Medical and Surgical Association will meet at Jackson, May 17-18, 1900. You are cordially invited to be present, and contribute a paper on a subject of your own choice. This association has a substantial growth; both in members and interest, each year, and to the medical man living in this section is probably the best medical society he can attend. The papers contributed are eminently practical and of much interest to the general practitioner.

THE following have been re-elected as members of the Staff of the City Hospital:

Physician—Dr. S. J. Cooper.  
Surgeon—Dr. John Maury.  
Gynecologist—Dr. S. E. Rice.  
Obstetrician—Dr. Alex. Erskine.  
Ophthalmologist—Dr. E. C. Ellett.

The following were retired by virtue of the new ordinance, which reduced the size of the staff:

Physicians—Drs. E. E. Haynes and J. H. Reilly.  
Surgeons—Drs. M. B. Herman and F. D. Smythe.

THE next course of ten lectures instituted by the late Professor Thomas Dent Mutter, M.D., LL.D., on some "Point or Points in Surgical Pathology," will be delivered in the winter of 1902-1903 before the College of Physicians of Philadelphia. The compensation is \$600. The appointment is open to the profession at large. Applications stating in full subjects of proposed lectures, must be made

before October 1, 1900, to the committee on the Mutter Museum. John H. Brinton, M.D., Chairman. The lectures for 1899-1900 will be delivered in March and April, 1900, by Dr. Jno. B. Roberts, of Philadelphia, the subjects covered being the surgical and artistic anatomy and cosmetic surgery of the face, including the eyes, ears, nose, mouth, etc.

**PRELIMINARY PROGRAM OF THE MEDICAL SOCIETY OF THE STATE OF TENNESSEE.**—To be held at Knoxville, April 10, 11, 12, 1900.

PAPERS.

1. Heredity, the Presidential Address—Dr. D. E. Nelson, Chattanooga.
2. Chronic Non-Suppurative Inflammation of the Middle Ear—Dr. B. F. Young, Knoxville.
3. Dystocia, Due to Diseases of the Mother—Dr. R. J. McFall, Cumberland City.
4. Alcohol in the Practice of Medicine—Dr. I. A. McSwain, Paris.
5. Albuminuria—Dr. Frank B. Reagor, Shelbyville.
6. Dangers and Treatment of Abortion—Dr. J. S. Nowlin, Shelbyville.
7. Cystitis—Dr. J. B. Murfree, Jr., Murfreesboro.
8. Cæsarean Section, with Report of a Case—Dr. M. C. McCannon, Nashville.
9. Paper—Dr. W. G. Bogart, Chattanooga.
10. Pneumonia in Children—Dr. D. R. Neil, Nashville.
11. The Much-Abused Mosquito—Dr. J. T. Griffin, Tiptonville.
12. Observations in Thought Pathology—Dr. G. P. Edwards, Nashville.
13. The Practice of Medicine as a Business—Dr. J. R. Jump, Lenoir City.
14. Fistula in Ano—Dr. J. T. Graham, Booneville.
15. Treatment of Urethral Stricture—Dr. W. F. Glenn, Nashville.
16. The Correction of Certain Deformities of the Nasal Septum—Dr. Richmond McKinney, Memphis.
17. Sanitary Thoughts—Dr. E. H. Jones, Murfreesboro.
18. A Case of Vesical Calculi—Dr. A. B. Ramsey, McMinnville.
19. Some Points in Pelvic Inflammation—Dr. T. J. Crofford, Memphis.
20. Three Cases of Atypic Pneumonia—Dr. H. C. Chance, Tazewell.
21. A Warning in Regard to Vaccination. Some Companions—Dr. F. J. Runyon, Clarksville.
22. Work Develops; Worry Deteriorates the Brain—Dr. G. W. Drake, Hollins, Va.
23. Salpingo-Oophorectomy, with Report of Three Cases—Dr. S. B. Fowler, Gainesboro.
24. E. J. Senn's Amputation of the Breast for Carcinoma—Dr. T. J. Happel, Trenton.
25. Salient Points in Appendix Operations—Dr. R. E. Fort, Nashville.
26. A Plea for the Differentiation of Continued Fevers—Dr. J. D. Plunket, Nashville.
27. Paper—Dr. S. S. Crockett, Nashville.
28. The Anatomy and Pathology of the Rectal Valves—Dr. A. B. Cook, Nashville.
29. The New Treatment of Obstipation—Dr. Thomas Charles Martin, Cleveland, O.
30. The Perfection of the Technics in Aseptic Surgery—Dr. W. D. Haggard, Jr., Nashville.

One and one-third fare on certificate plan.

Titles of papers should be sent to W. D. HAGGARD, JR., M.D., Secretary.

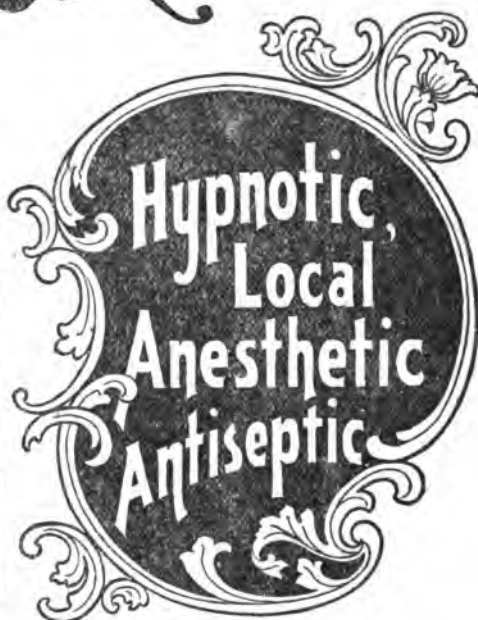
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## CLINICAL NOTES.

THE steamships *City of Rome* and *State of Nebraska* have been chartered to leave New York on June 30, 1900, especially for physicians, their families and friends who desire to visit the Paris Exposition and other parts of Europe. Trip to last thirty-two days. Rates low and first-class passage. The physicians of the West are going in a body, and the physicians of Alabama, Mississippi, Louisiana, Arkansas, Tennessee and Indian Territory have been invited to go with them.

For full particulars, address G. G. BUFORD, M.D., Memphis, Tenn.

### PROTONUCLEIN IN DIPHTHERIA.—

Case 780. Dr. — writes: Have used Protonuclein Tablets in 294 cases of diphtheria, in conjunction with antitoxin, and have never lost a case.

IODOFORM AND ITS CONGENERS.—In discussing the various substitutes for iodoform, E. S. Yonge, M.D., C.M., physician at the Manchester Hospital for Consumption, Manchester, England (*Medical Brief*, February, 1900), says that Europhen is one of the best substitutes for iodoform. Without being devoid of scent, it does not possess a sledge-hammer odor like its congener. It is non-toxic, adheres well to a wound, does not cake, and, owing to its lightness, a given weight, as compared with iodoform, will cover a surface five times the area of the latter. The general opinion is, that this drug can be used in all cases that are benefited by the application of iodoform. In venereal ulcers it acts well, and in these cases should certainly replace iodoform. In summing up the relative advantages of the substitutes of iodoform as compared with that drug, the author states that Europhen is probably the most efficient substitute, as far as antiseptic action is concerned.

### CONGESTIVE DYSMENORRHEA.—

R. Neurosine (Dios),  
Dioivurnia (Dios),   āā 3 iv.  
M. Sig.: Teaspoonful three times a day.

### PROTONUCLEIN IN QUINSY.—

Case 757. Dr. — writes: Protonuclein will abort quinsy every time. I have several patients who were subject to quinsy on the least provocation, who report that the Protonuclein Tablets never fail.

# Trophonine

a palatable and nutritious liquid food, contains the nutritive elements of beef, wheat-gluten, and nuclealalbumins, so prepared as to be readily absorbed and aid almost immediately in the process of reconstruction. It furnishes the sick with the largest possible supply of nourishment and with the minimum tax on the digestive organs.

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# Protonuclein

by increasing the number of Leucocytes, destroys toxic germs, increases the inherent resistance to disease, quickens glandular activity, arouses the nutritive forces, gives tone to the system, and stimulates cell-life throughout the organism.

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# Peptenzyme

is the only perfect digestant. It digests every variety of food. In physiological activity it presents the active and mother ferments of the entire group of digestive organs. It aids digestion by furnishing an additional supply of protoplasmic material out of which active ferments are elaborated, and perfects the process by increasing cellular activity.

**FORMULA.**—Take 1000 each of SALIVARY, PEPTIC, PANCREATIC, LIEBERKUHN'S, and BRUNNER'S glands, and the ALCOHOLIC EXTRACTS OF 1000 SPLEENS AND LIVERS, so any quantity contains a proportionate quantity of the enzyme principles of the whole series of digestive organs. To one part in powdered form and slightly benzoated and separated mechanically as above, add 1.5 parts of powdered sugar, 1.5 parts of powdered milk-sugar, .16 parts of citric acid.

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Samples and literature on request.

**Reed & Carnrick,** 42-46 Germania Ave., Jersey City, N. J.

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**SANMETTO IN CHRONIC ORCHITIS.**—J. A. Stothart, M.D., Savannah, Ga., reports the following case: During November, 1898, a Greek fruit vender called at my office, suffering with chronic orchitis. The patient stated that the first attack occurred four years prior to this time. During the four years there had never been more than two and a half months between the attacks. He had been under treatment most of this time, and several times in the hospitals, and had been discharged as cured by several physicians. The testicle had almost arrived at the condition of ossification, but at no time had there been any pus formation. I prescribed Sanmetto and directed that the treatment be continued for two or three months. My treatment was carried out to the letter, and there has never been any return of the trouble since beginning the use of Sanmetto. I have used Sanmetto in other urethral troubles with very satisfactory results.

**HEADACHE, HEMICRANIA, NEURALGIA.**—

R. Neurosine (Dios), 3 viij.

M. Sig.: Dessertspoonful three to five times a day.

Pepsin is undoubtedly one of the most valuable digestive agents of our materia medica, provided a good article is used. Robinson's Lime Juice and Pepsin, and Arom. Fluid Pepsin (see page 17 this number) we can recommend as possessing merit of high order. The fact that the manufacturers of these palatable preparations use the purest and best pepsin, and that every lot made by them is carefully tested, before offering for sale, is a guarantee to the physician that he will certainly obtain the good results he expects from pepsin.

**PROTONUCLEIN IN VOMITING IN PREGNANCY.—**

Case 779. Dr. — writes: Protonuclein almost worked a miracle; gave one tablet after each meal till patient took twenty-five, and patient never had any more trouble with her stomach during the remaining four months.

The superior appliances of G. W. Flavell & Bro., Philadelphia, Pa., have been used with most satisfactory results, and physicians are cordially requested to order direct from the firm, as it saves time and expense; their goods are noted for their excellence of quality, durability and low standard of prices, which are unsurpassed.

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**EPILEPSY AND CHOREA.—**

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Antipyrin,                                3 v.  
Neurosine (Dios),                    q.s. 3 viij.

M. Sig.: Teaspoonful every hour until relieved.

**NINE HOURS v. NINE DAYS.**—An old practitioner of medicine states that for many years his invariable response to the inquiry—"what shall I take, doctor, for rheumatism?" was—"nine weeks."

Since the therapeutic action of Tongaline was called to his attention he prescribes that product with much gratification, feeling confident that his patients will experience some improvement in nine hours, and in nearly every instance will be cured within nine days.

Tongaline is the logical prescription for rheumatism, neuralgia, grippe, nervous headache, gout, sciatica and lumbago, since on account of its wonderful eliminative powers, the poisonous and viscid secretions which cause these diseases are more promptly and thoroughly removed than by any other combination.

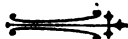


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RARE DRUGS AND CHEMICALS.

Mail Orders receive prompt attention.

PROTONUCLEIN IN TYPHOID FEVER AND PNEUMONIA.—

Case 753. Dr. — writes: I have used Protonuclein largely in typhoid fever and pneumonia, and do not think of treating either of those diseases without it.

THE NEW ORLEANS POLYCLINIC.—*Thirteenth Annual Session* opens November 20, 1899—closes May 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, Louisiana.

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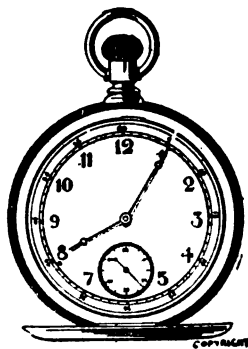
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M. B. HERMAN, M.D.

W. W. TAYLOR, M.D.

WM. KRAUSS, M.D.

J. M. MAURY, M.D.

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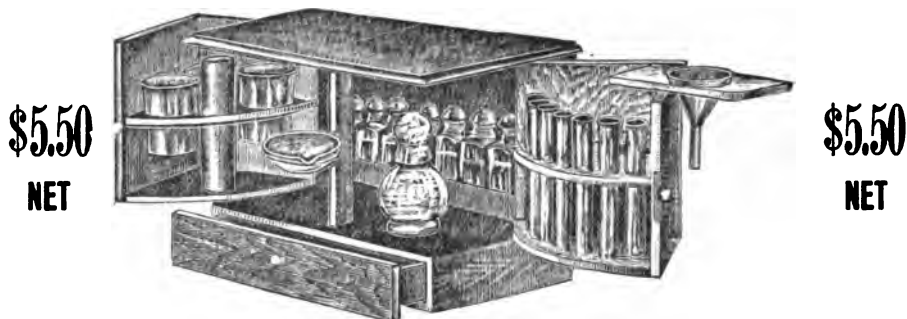
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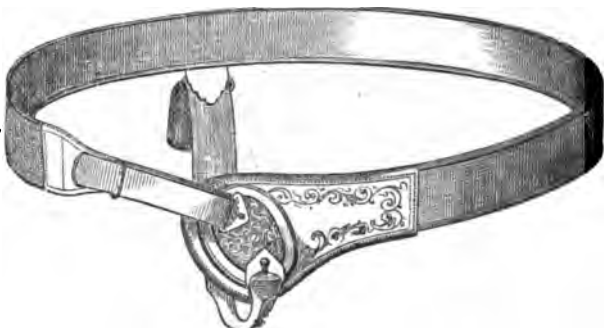
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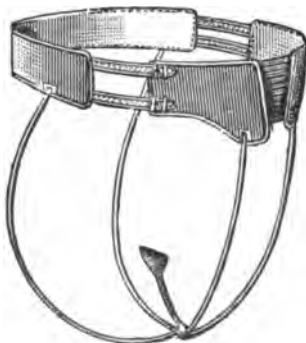
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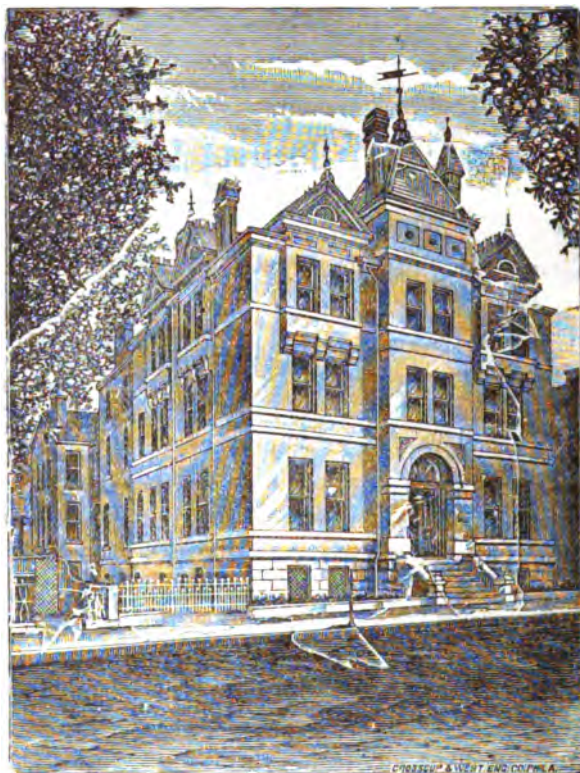
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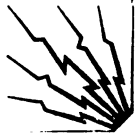
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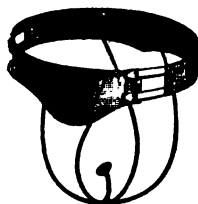
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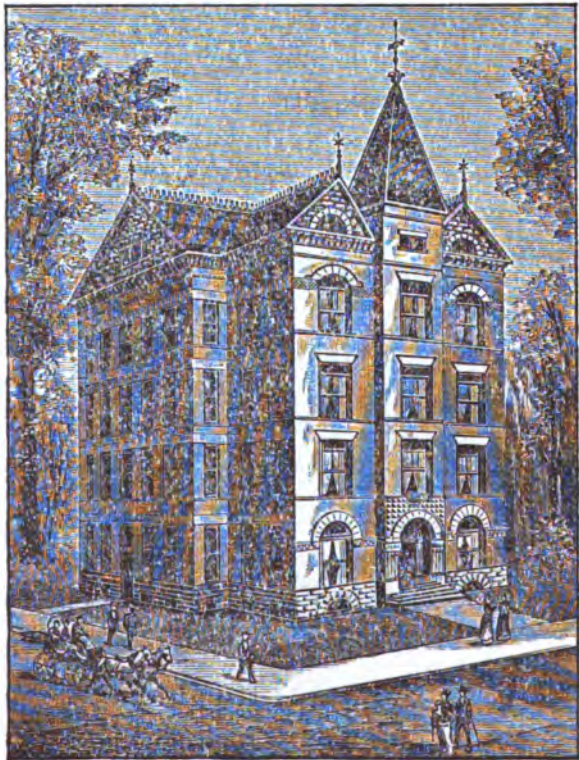
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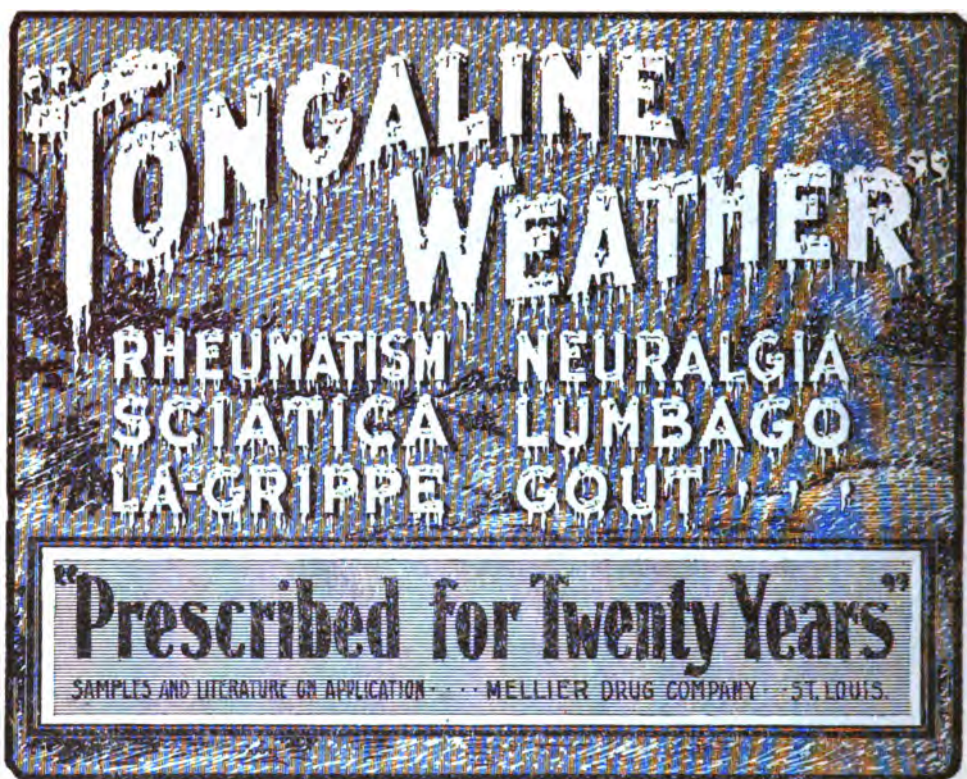
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